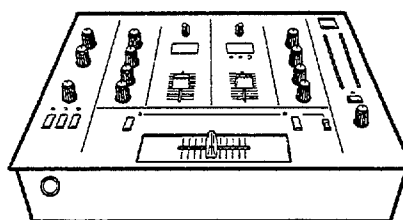


Service Manual

PIONEER®
The Art of Entertainment



ORDER NO.
RRV1711

DJ MIXER

DJM-300

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	DJM-300		
KUC	○	AC120V	_____
SYL	○	AC110V/120V/220-230V/240V	With the voltage selector

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T-KZR NOV. 1996 Printed in Japan

1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

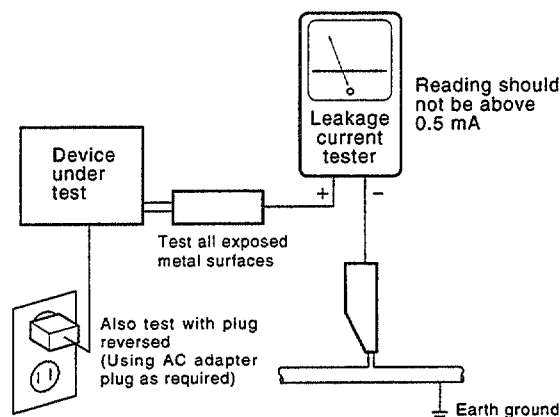
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a  on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

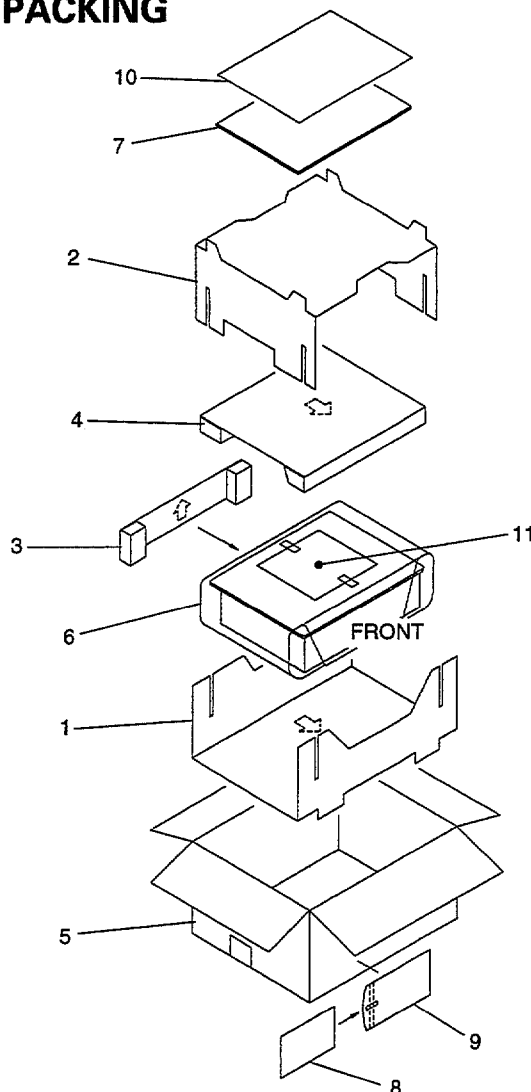
2. EXPLODED VIEWS AND PARTS LIST

NOTES : ● Parts marked by “NSP” are generally unavailable because they are not in our Master Spare Parts List.

● The $\triangle$ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

● Screw adjacent to ∇ mark on the product are used for disassembly.

2.1 PACKING



(1) Parts List

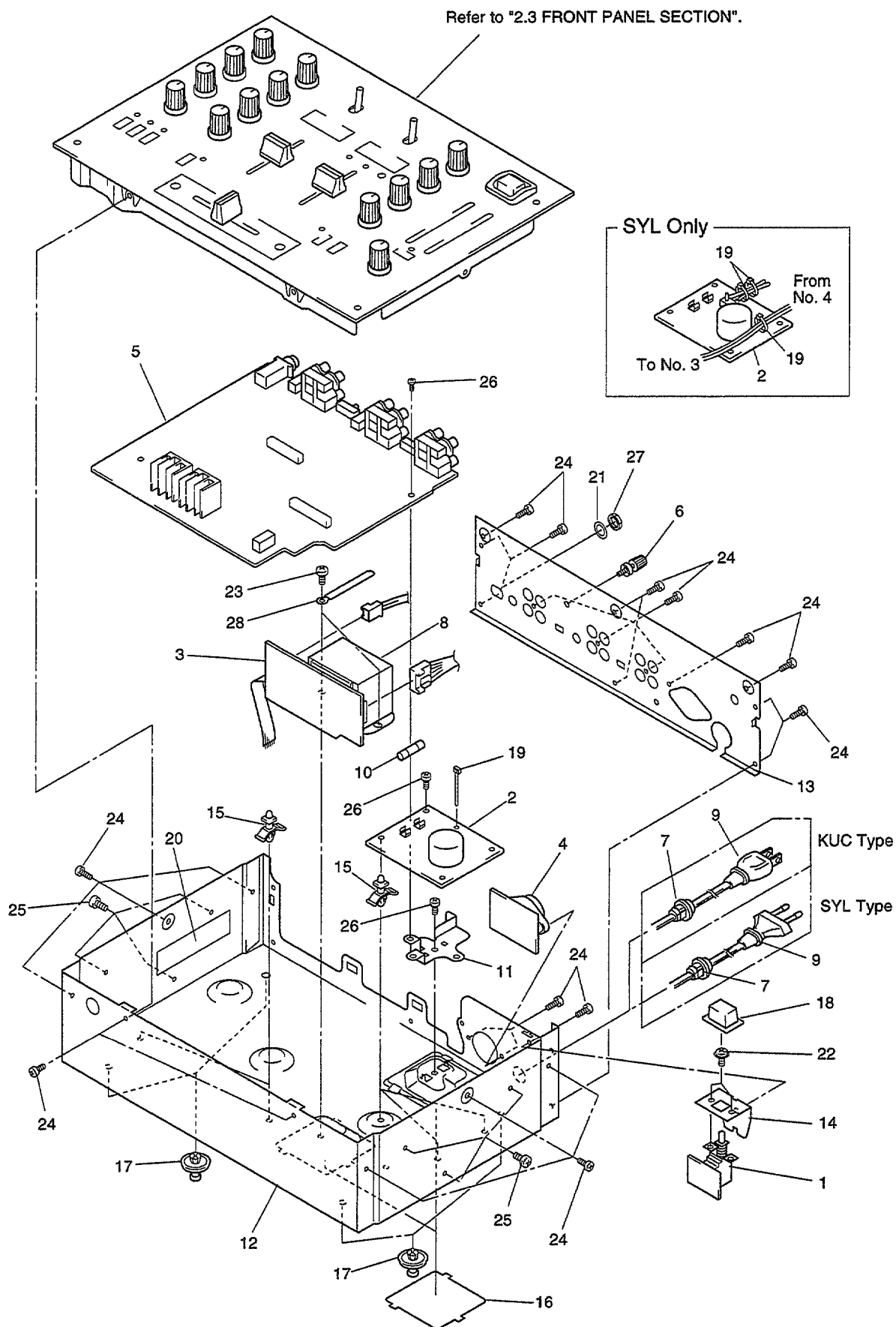
Mark	No.	Description	Parts No.
	1	PAD A	DHA1370
	2	PAD B	DHA1371
	3	PAD C	DHA1372
	4	PAD D	DHA1375
	5	PACKING CASE	See Contrast table (2)
	6	SHEET	RHX1006
	7	OPERATING INSTRUCTIONS	See Contrast table (2)
NSP	8	CARD	See Contrast table (2)
NSP	9	VINYL BAG	See Contrast table (2)
NSP	10	WARRANTY CARD	See Contrast table (2)
NSP	11	CAUTION CARD 220V	See Contrast table (2)

(2) Contrast Table

DJM-300/KUC and SYL have the same construction except for the following:

Mark	No.	Description	Part No.		Remarks
			DJM-300/KUC	DJM-300/SYL	
	5	Packing Case	DHG1737	DHG1736	
	7	Operating Instructions (English/French)	DRB1206	Not used	
	7	Operating Instructions (English/French/German/Italian/Dutch/ Swedish/Spanish/Chinese)	Not used	DRB1207	
NSP	8	Card	DRY1032	Not used	
NSP	9	Vinyl Bag	DHL1011	Not used	
NSP	10	Warranty Card	DRY1171	Not used	
NSP	11	Caution Card 220V	Not used	ARR7003	

2.2 EXTERIOR



(1) Parts List

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
NSP	1	POWER SW ASSY	DWR1262		21	WASHER	DBE1010
NSP	2	POWER SUP ASSY	See Contrast table (2)		22	SCREW	AMZ30P040FMC
NSP	3	TRANS ASSY	See Contrast table (2)		23	SCREW	BBZ40P060FMC
NSP	4	VOLTAGE SELECT ASSY	See Contrast table (2)		24	SCREW	BBZ30P080FZK
	5	TERMINAL ASSY	DWZ1072		25	SCREW	BBZ40P080FZK
	6	TERMINAL SCREW	AKE-031		26	SCREW	BBZ30P060FMC
	7	CORD STOPPER	See Contrast table (2)		27	NUT	NKX2FUC
△	8	POWER TRANSFORMER (T701)	See Contrast table (2)		28	CORD CLAMPER	See Contrast table (2)
△	9	AC POWER CORD	See Contrast table (2)				
△	10	FUSE (FU701)	See Contrast table (2)				
	11	PCB STAY	DNF1544				
NSP	12	CHASSIS	DNA1208				
NSP	13	REAR PANEL	See Contrast table (2)				
	14	PLATE (SW)	DNF1545				
NSP	15	PCB HOLDER	PNW2100				
	16	BOTTOM COVER	DEC2037				
	17	FOOT (RUBBER)	REC-434				
	18	POWER KNOB	DAC1847				
	19	BINDER	ZCA-SKB90BK				
	20	65 LABEL	See Contrast table (2)				

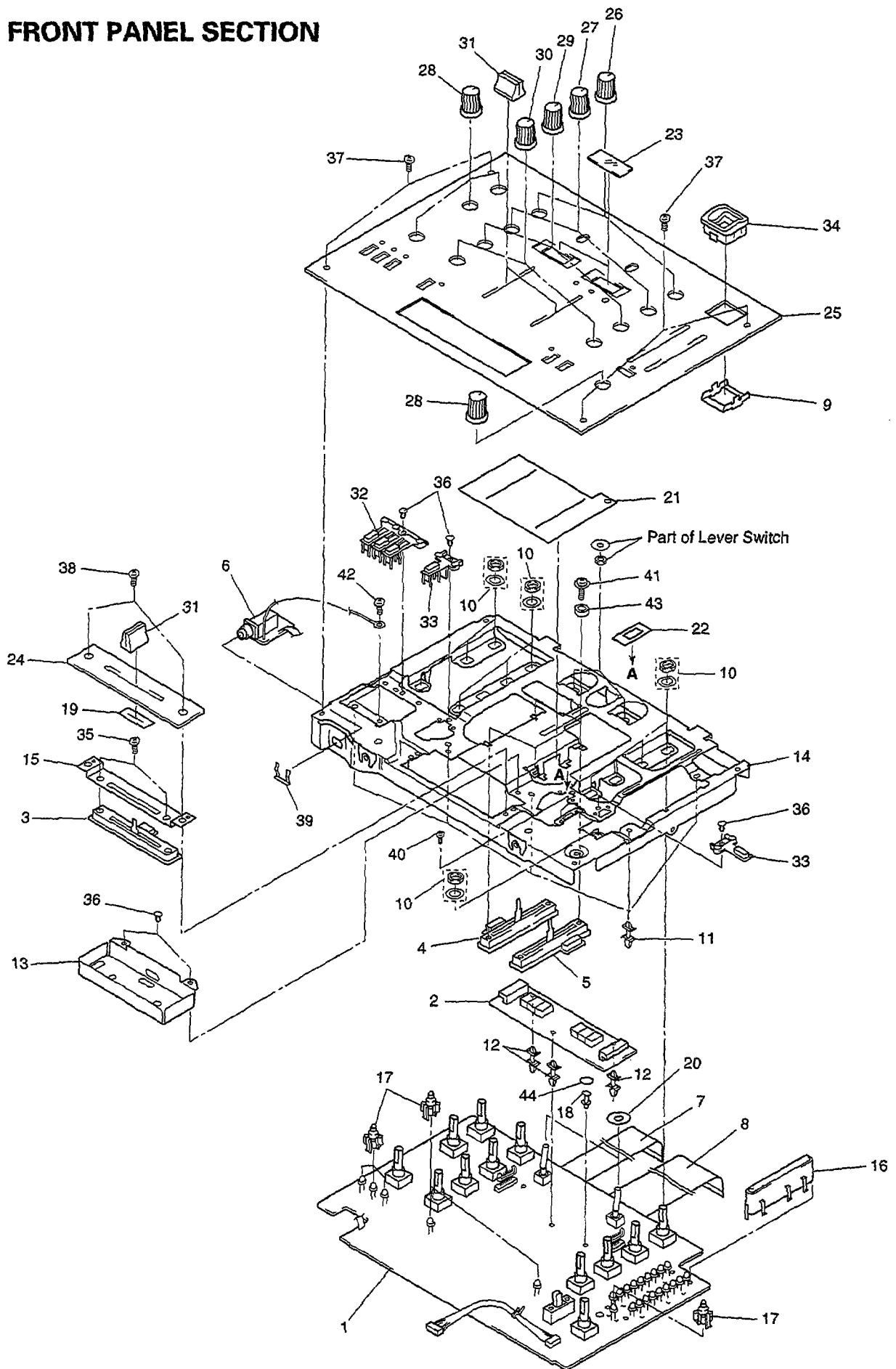
(2) Contrast Table

DJM-300/KUC and SYL have the same construction except for the following:

Mark	No.	Description	Part No.		Remarks
			DJM-300/KUC	DJM-300/SYL	
NSP	2	POWER SUP Assy	DWR1267	DWR1260	
NSP	3	TRANS Assy	DWR1268	DWR1261	
NSP	4	VOLTAGE SELECT Assy	Not used	DWR1263	
	7	Cord Stopper	CM-22C	CM-22B	
△	8	Power transformer (T701)	DTT1137	DTT1136	
△	9	AC Power Cord	PDG1015	PDG1003	
△	10	Fuse (FU701)	VEK1008 (400 mA)	AEK1049 (T315 mA)	
NSP	13	Rear Panel	DNC1438	DNC1437	
	20	65 Label	ORW1069	Not used	
NSP	28	Cord Clamper	Not used	ZCB-4772B	

DJM-300

2.3 FRONT PANEL SECTION



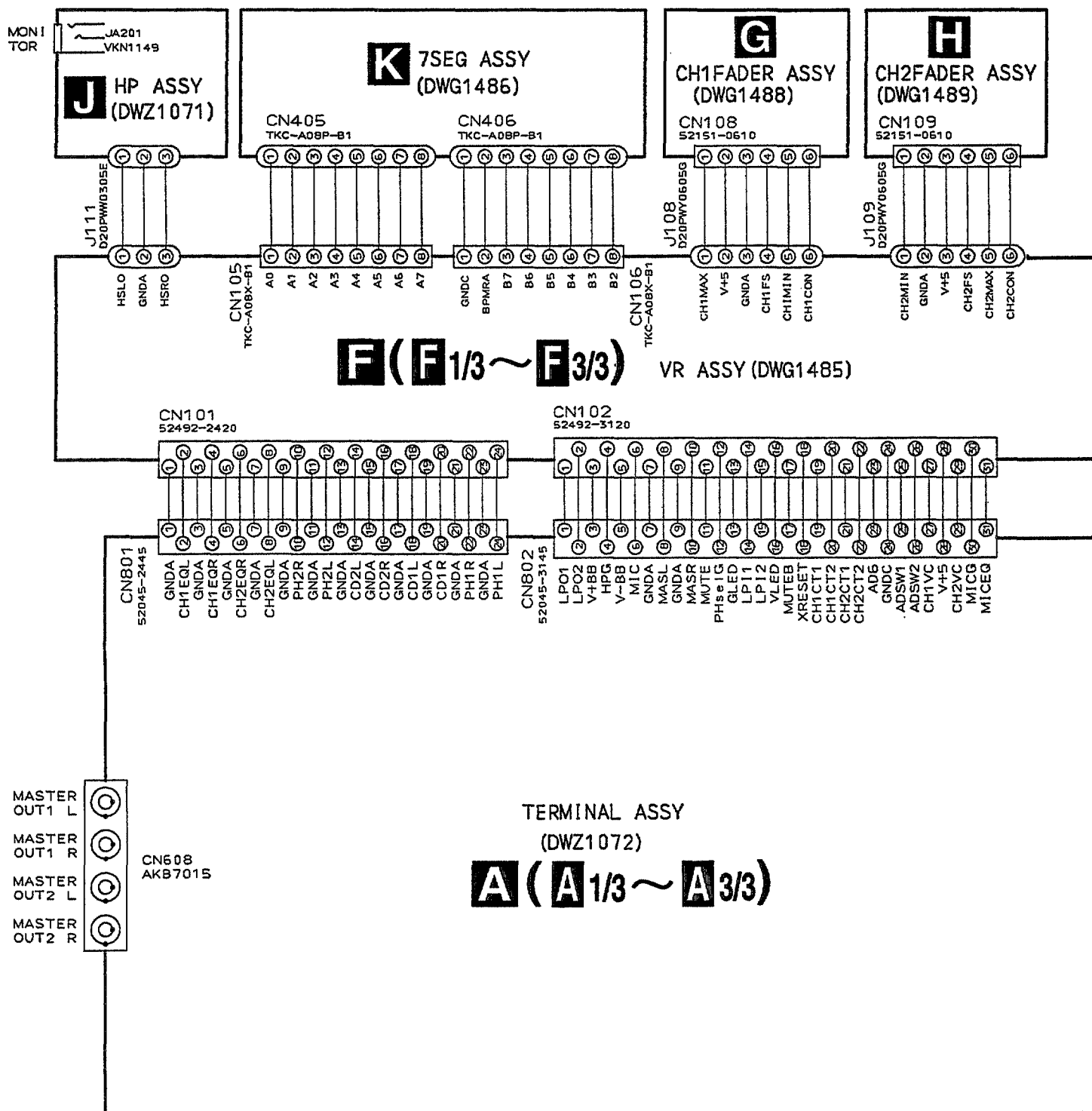
(1) Parts List

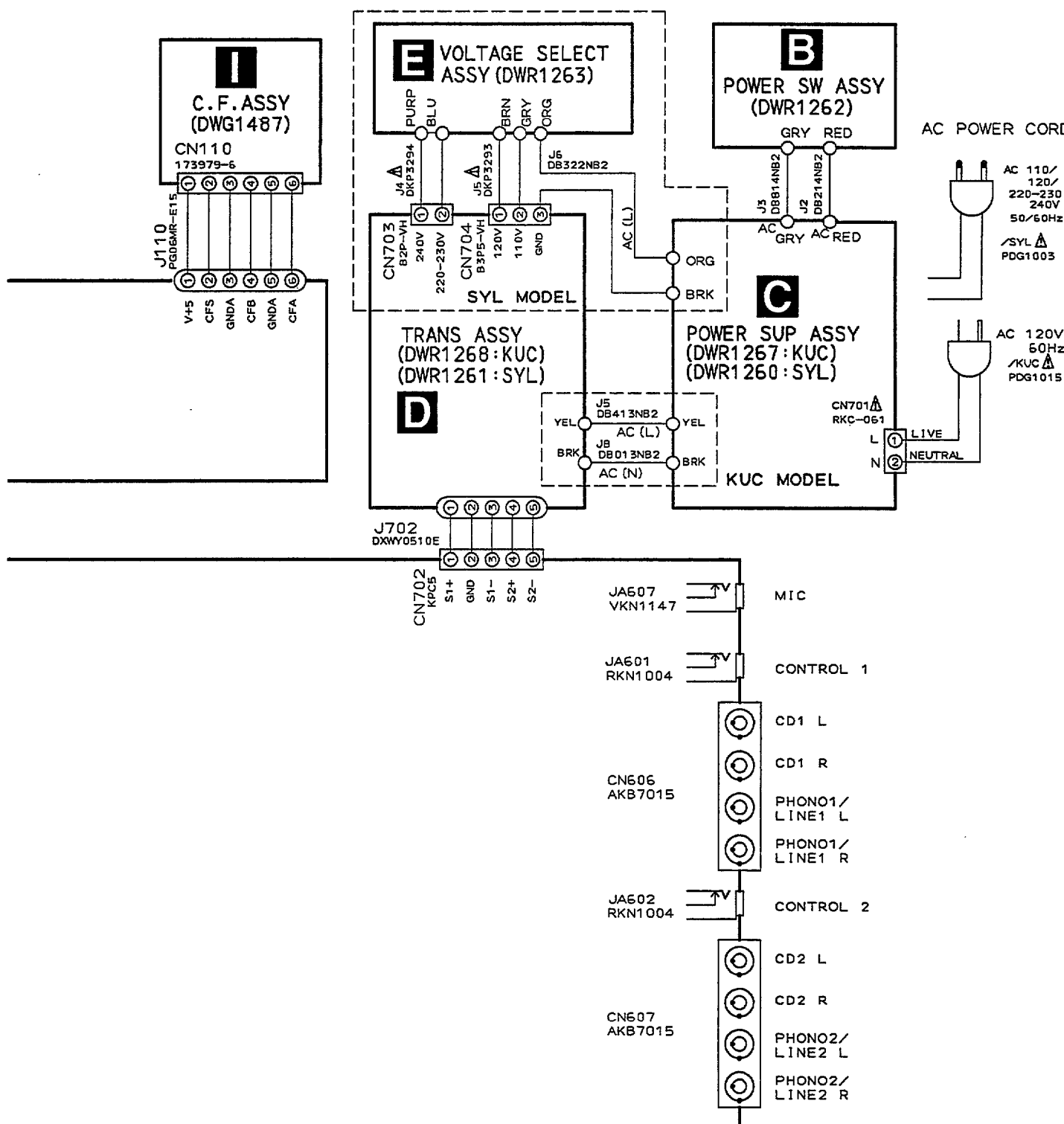
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	VR ASSY	DWG1485		36	RIVET	RBM-003
NSP	2	7SEG ASSY	DWG1486		37	SCREW	BBZ30P080FZK
NSP	3	C. F. ASSY	DWG1487		38	SCREW	CBZ30P080FZK
NSP	4	CH1 FADER ASSY	DWG1488		39	SNAP PLATE	VNE1102
NSP	5	CH2 FADER ASSY	DWG1489		40	SCREW	AMZ26P040FMC
	6	HP ASSY	DWZ1071		41	SCREW	PMH20P060FMC
	7	24P FFC/30V	DDD1108		42	SCREW	BBZ30P060FMC
	8	31P FFC/30V	DDD1113		43	SPACER	DLA1801
	9	POWER GUIDE SPACER	DBC2038		44	SPACER (WASHER)	DEC1982
	10	VR NUT	DBN1003				
NSP	11	PCB SPACER (14)	DEC1387				
	12	PCB SPACER (10)	DEC1388				
	13	CF COVER	DEC2039				
NSP	14	PANEL STAY	DND1203				
	15	PLATE (SLIDER)	DNF1518				
	16	LEVEL METER HOLDER	DNK3354				
	17	LED HOLDER	DNK3356				
NSP	18	CARD SPACER	REC1156				
	19	FADER PACKING B	DED1100				
	20	LEVER SW PACKING	DED1120				
	21	FADER PACKING C	DED1121				
	22	SLIDE SW PACKING B	DED1125				
	23	DISPLAY PANEL	DAH1824				
	24	SLIDER PANEL (B)	DAH1825				
	25	CONTROL PANEL	DNB1068				
	26	ROTARY VR KNOB G	DAA1133				
	27	ROTARY VR KNOB DG	DAA1135				
	28	ROTARY VR KNOB B	DAA1136				
	29	ROTARY VR KNOB GY	DAA1139				
	30	ROTARY VR KNOB GG	DAA1140				
	31	FADER KNOB	DAC1846				
	32	KNOB ASSY	DAC1871				
	33	TACT KNOB	DAC1872				
	34	POWER KNOB GUIDE	DNK3207				
	35	SCREW	AMZ30P040FMC				

3. SCHEMATIC DIAGRAM

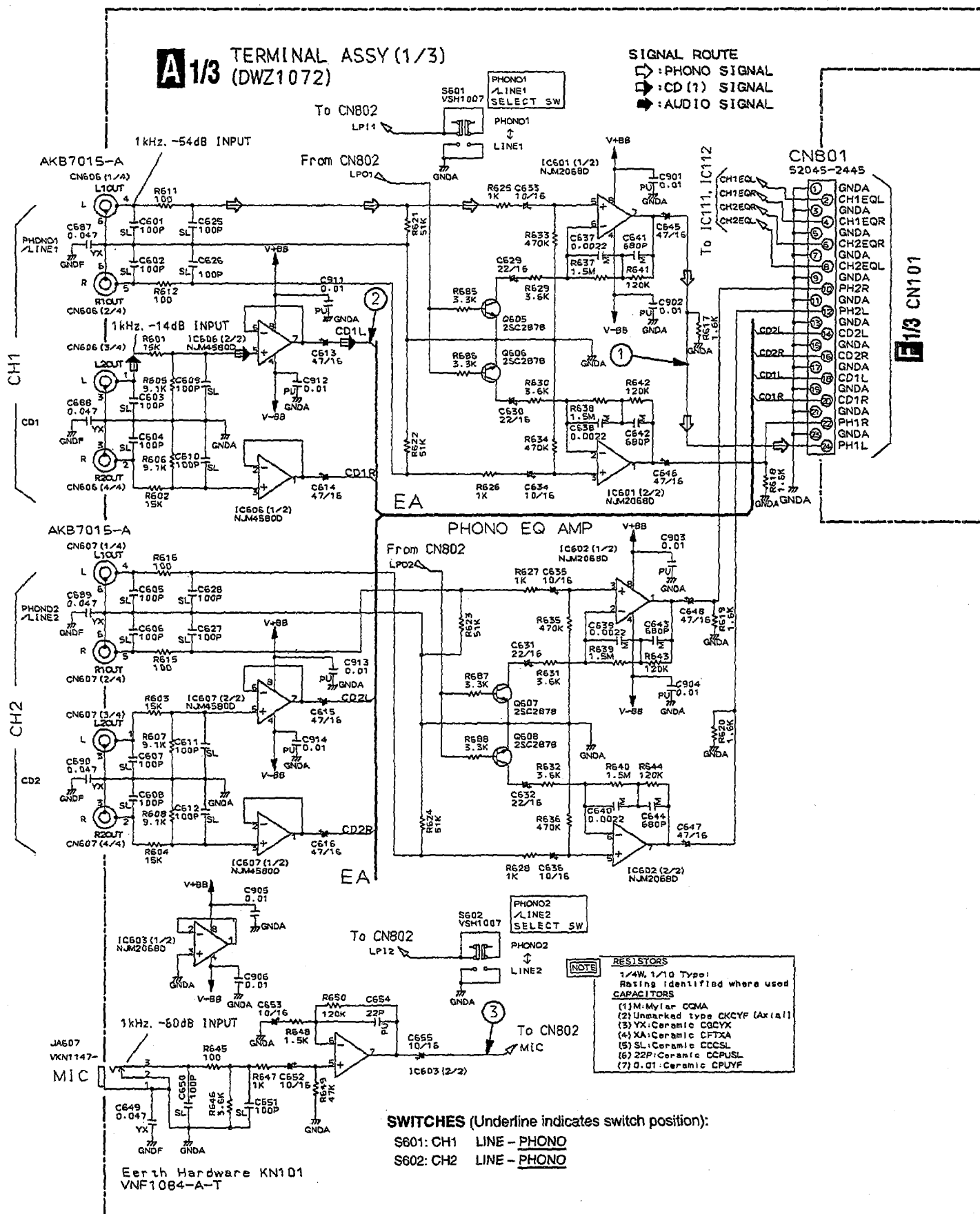
Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "PCB PARTS LIST".

3.1 OVERALL SCHEMATIC DIAGRAM



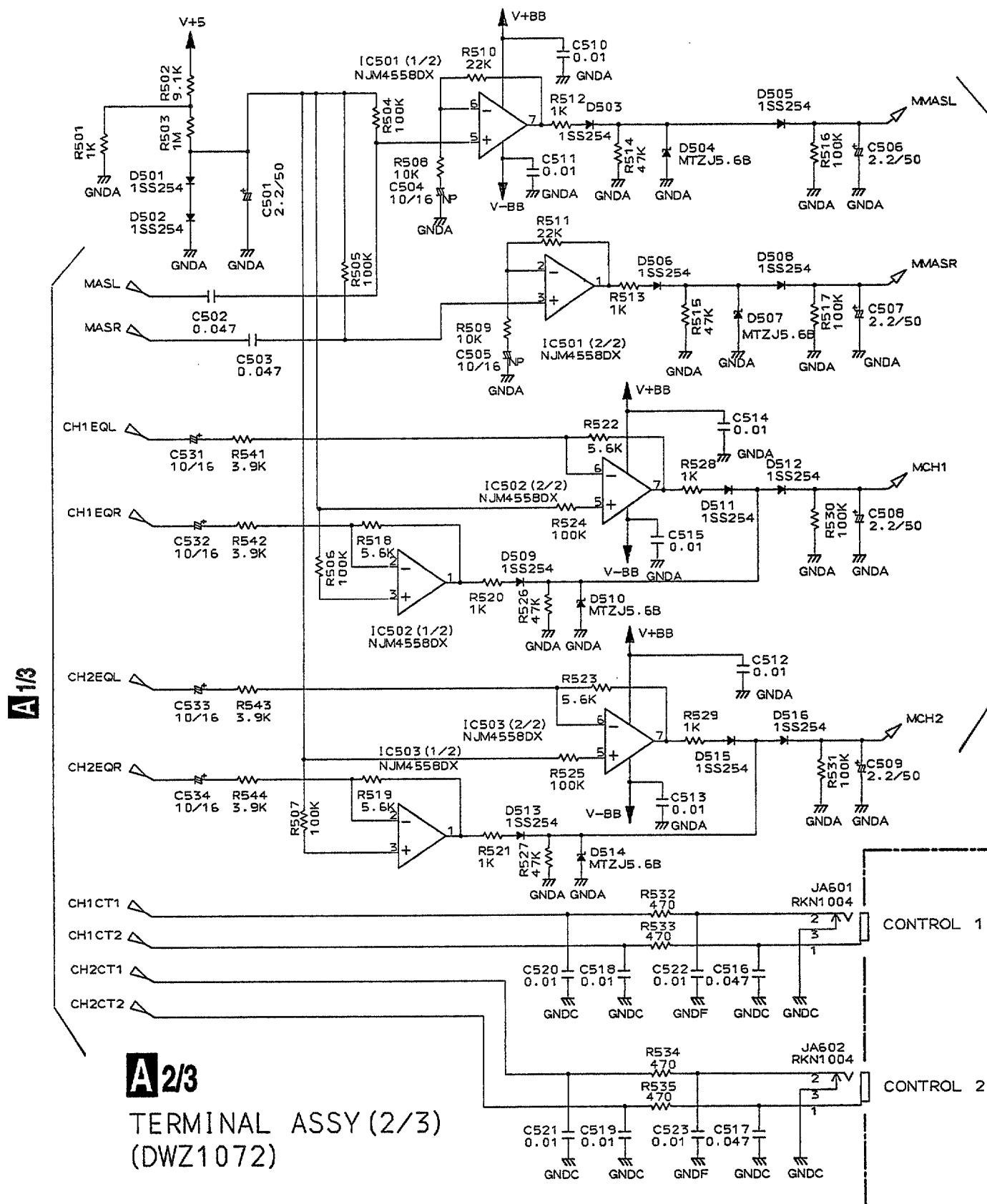


3.2 TERMINAL ASSY (1/3)



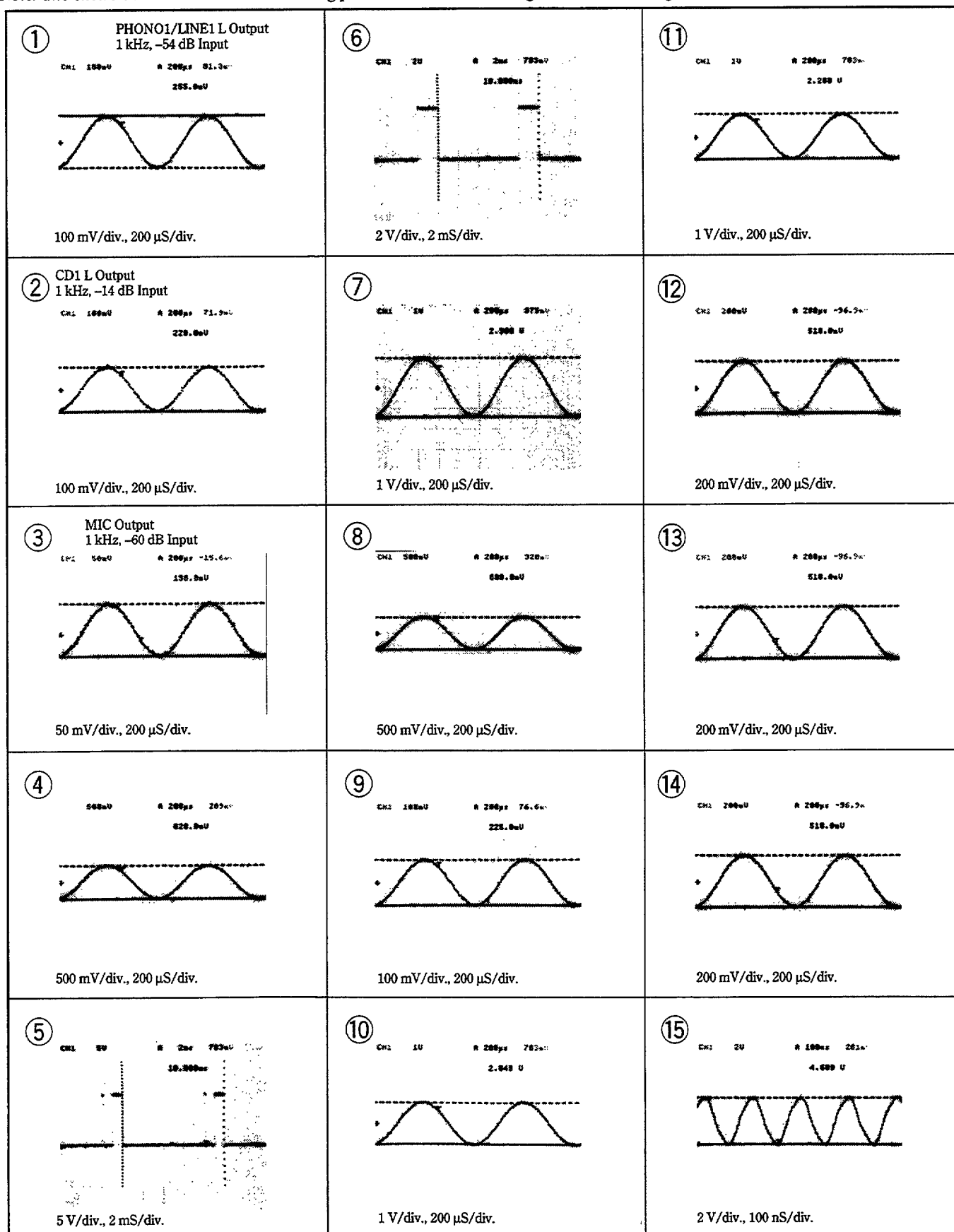


3.3 TERMINAL ASSY (2/3)



Waveforms

Note: The encircled numbers denote measuring point in the schematic diagram and block diagram.

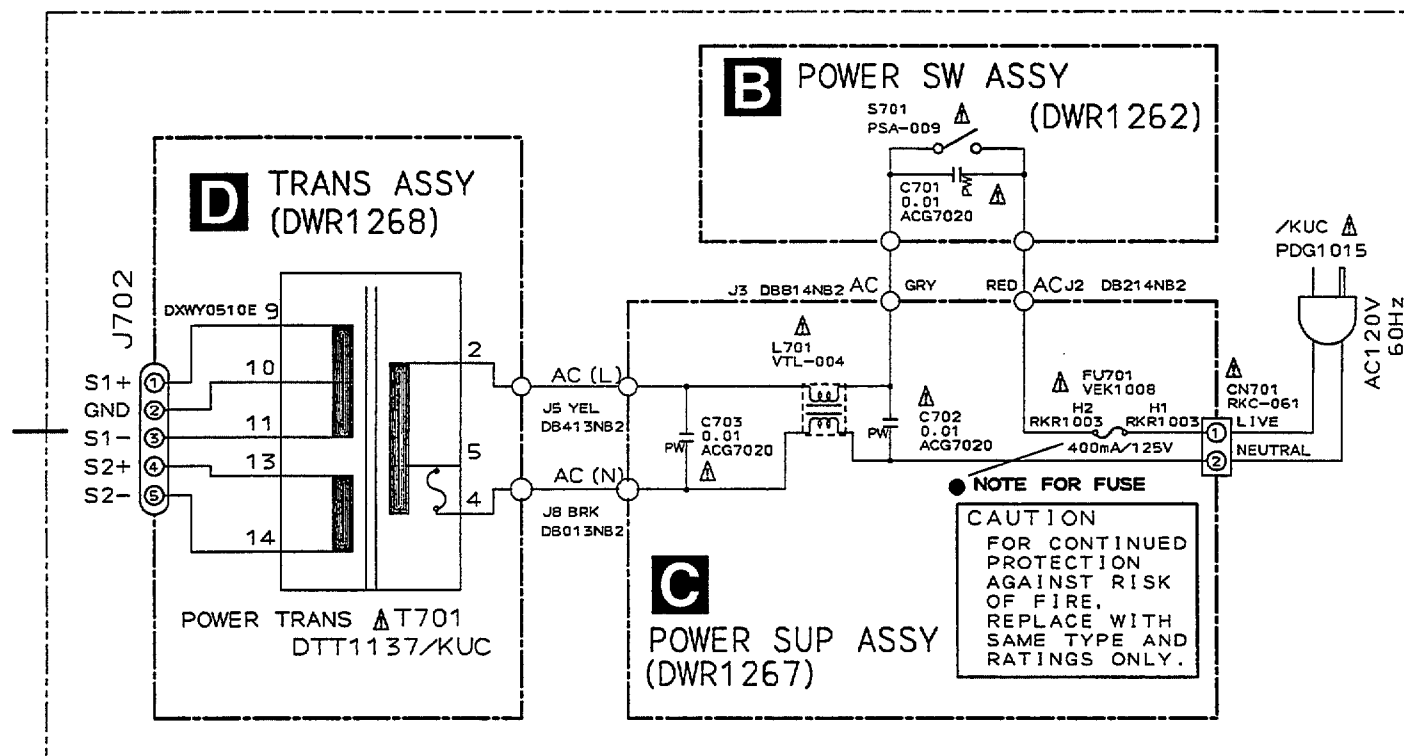




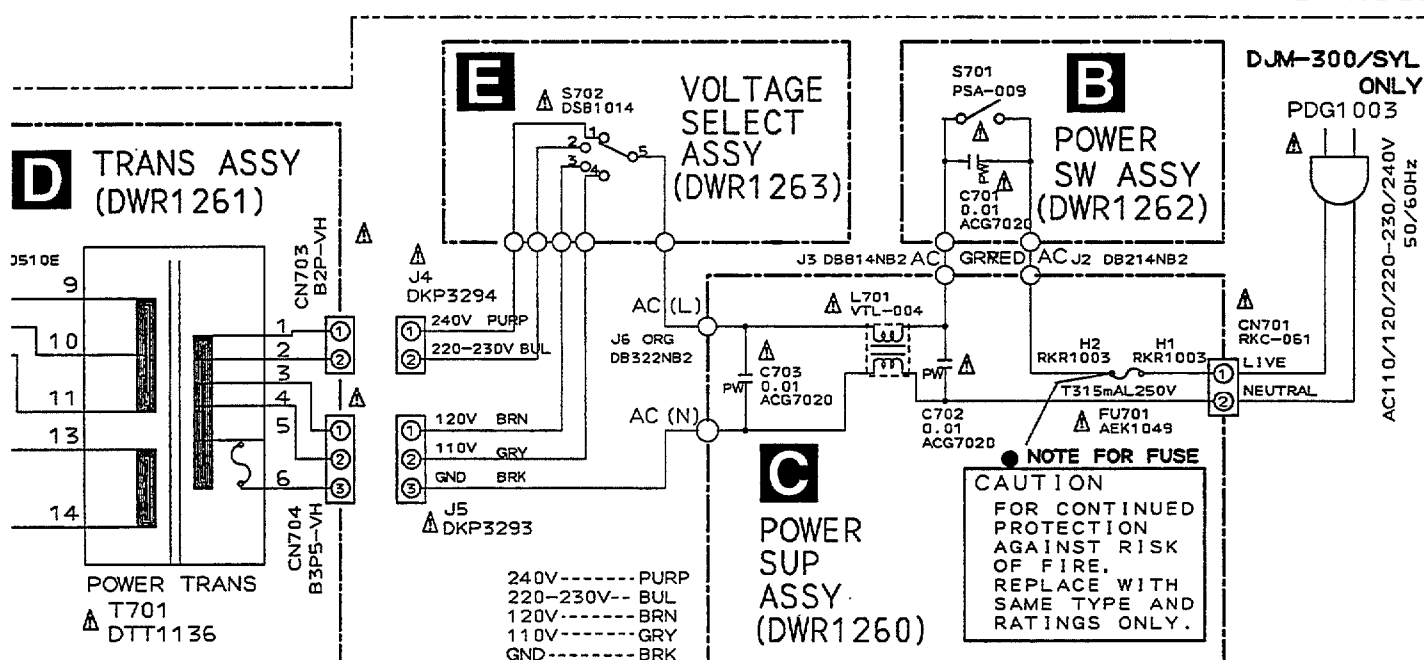
CAUTION

FOR CONTINUED PROTECTION AGAINST RISK OF FIRE,
REPLACE ONLY WITH SAME TYPE NO. ICP-N15,
MFD. BY ROHM CO., LTD. FOR IC704

KUC MODEL



SYL MODEL

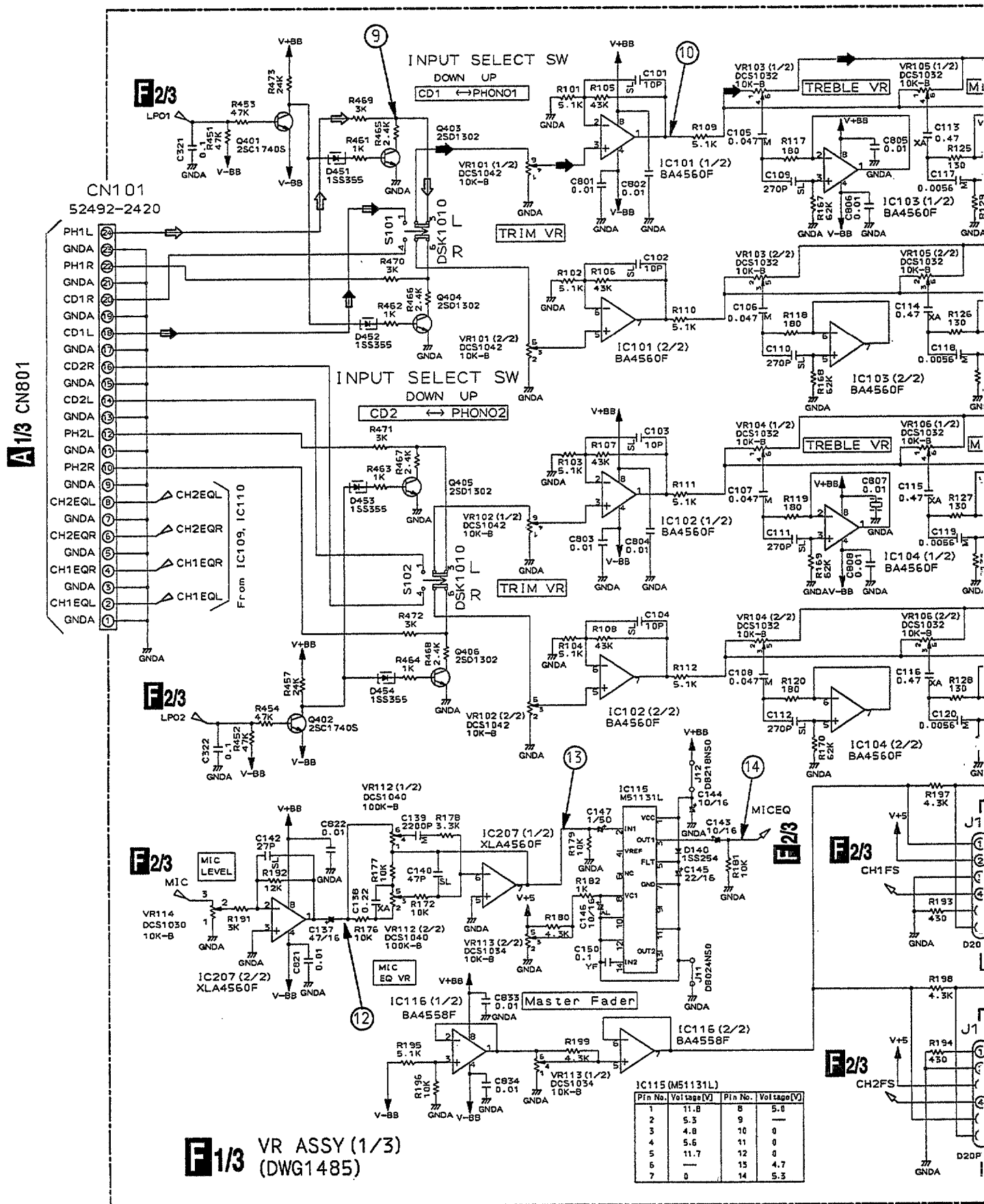


SWITCHES (Underline indicates switch position):

S702: VOLTAGE SELECTOR

AC110V / 120V / 220-230V / 240V

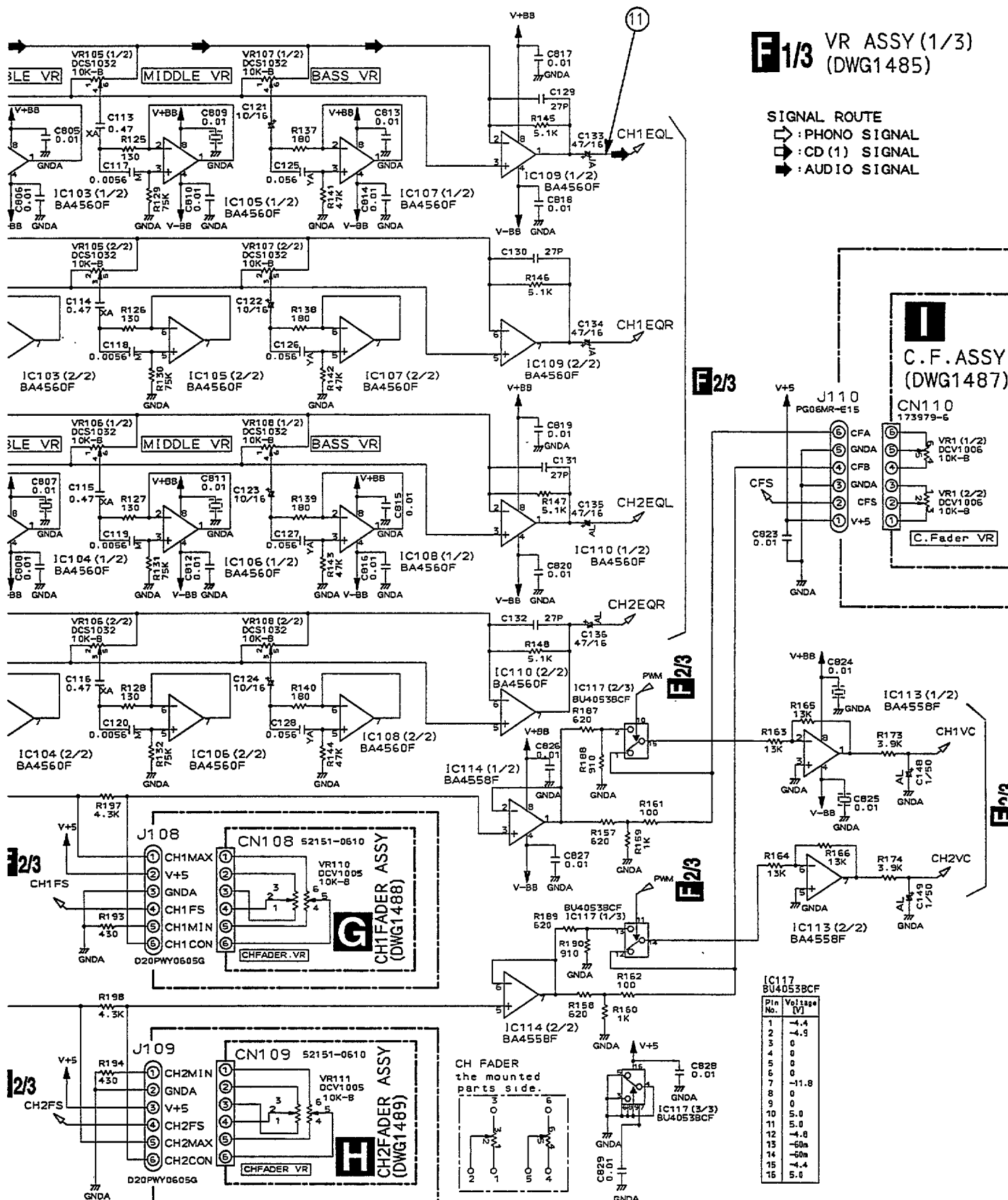
B C D E 15



SWITCHES (Underline indicates switch position):

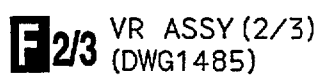
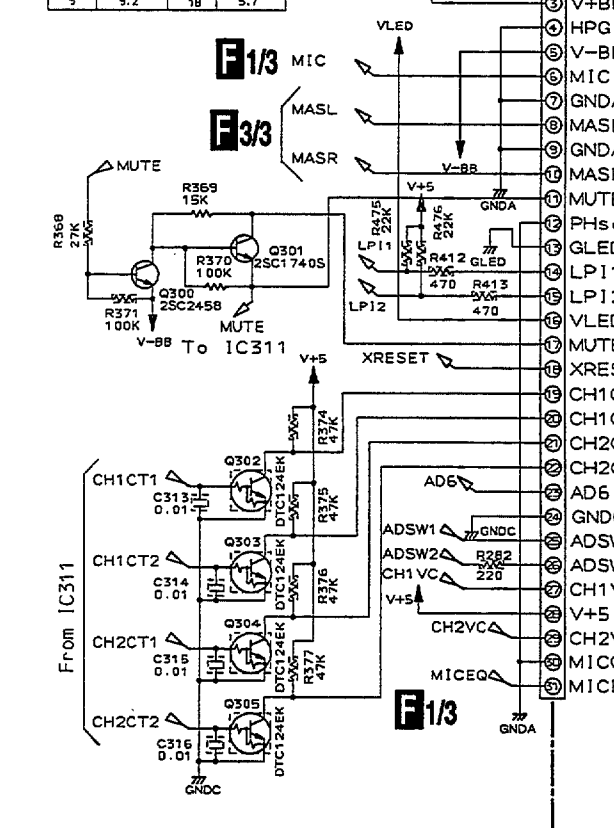
S101: INPUT SELECTOR PHONO1 / LINE1

S102: INPUT SELECTOR PHONO2 / LINE2

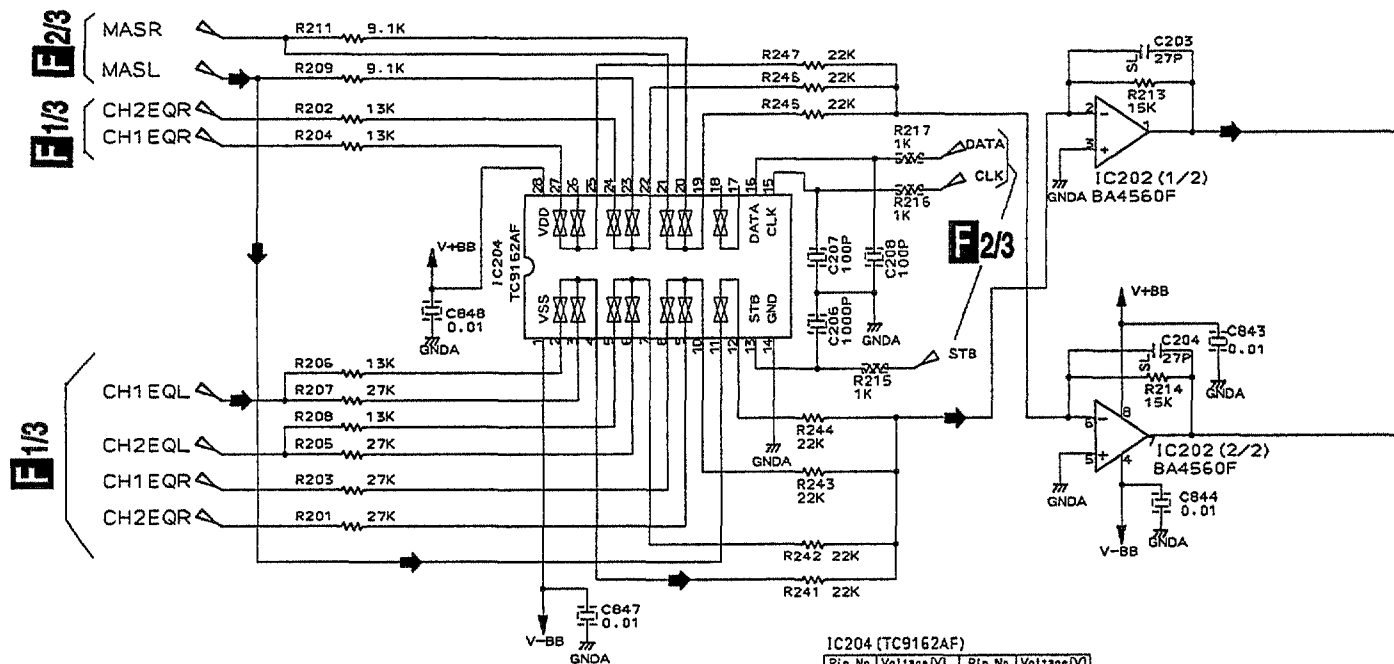




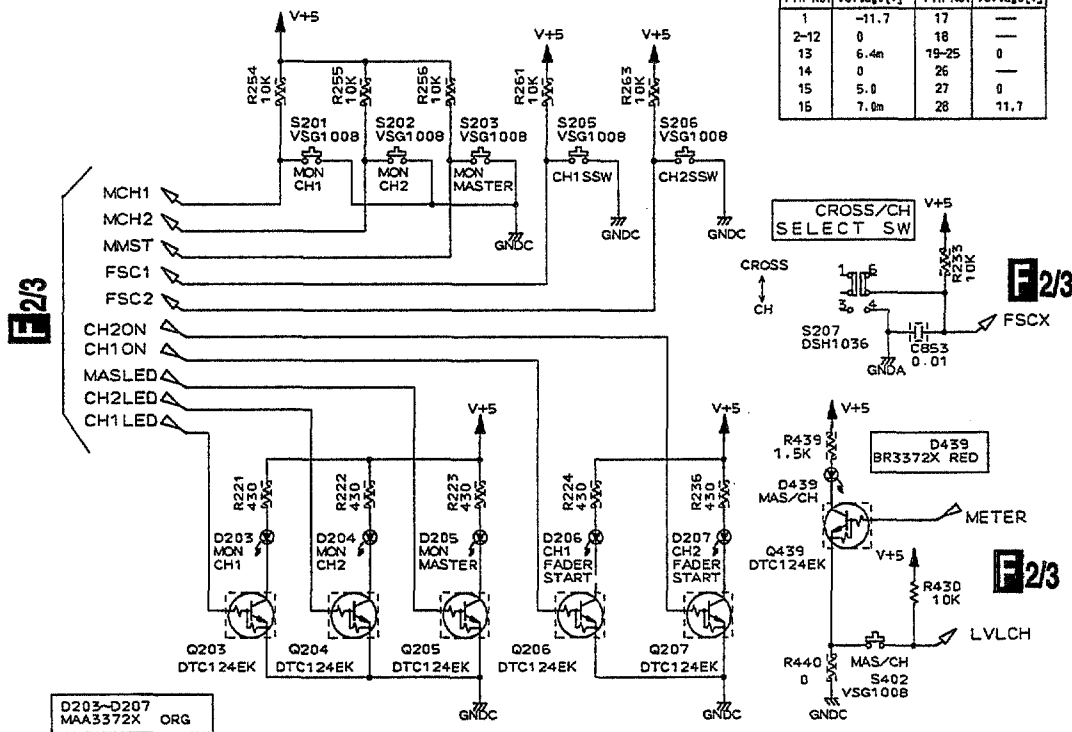
Pin No.	Voltage (V)
1	3.3
2	3.3
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0.6
11	1.0
12	0
13	3.3
14	3.3
15	3.3
16	5.0



3.7 VR ASSY (3/3), HP ASSY AND 7SEG ASSY



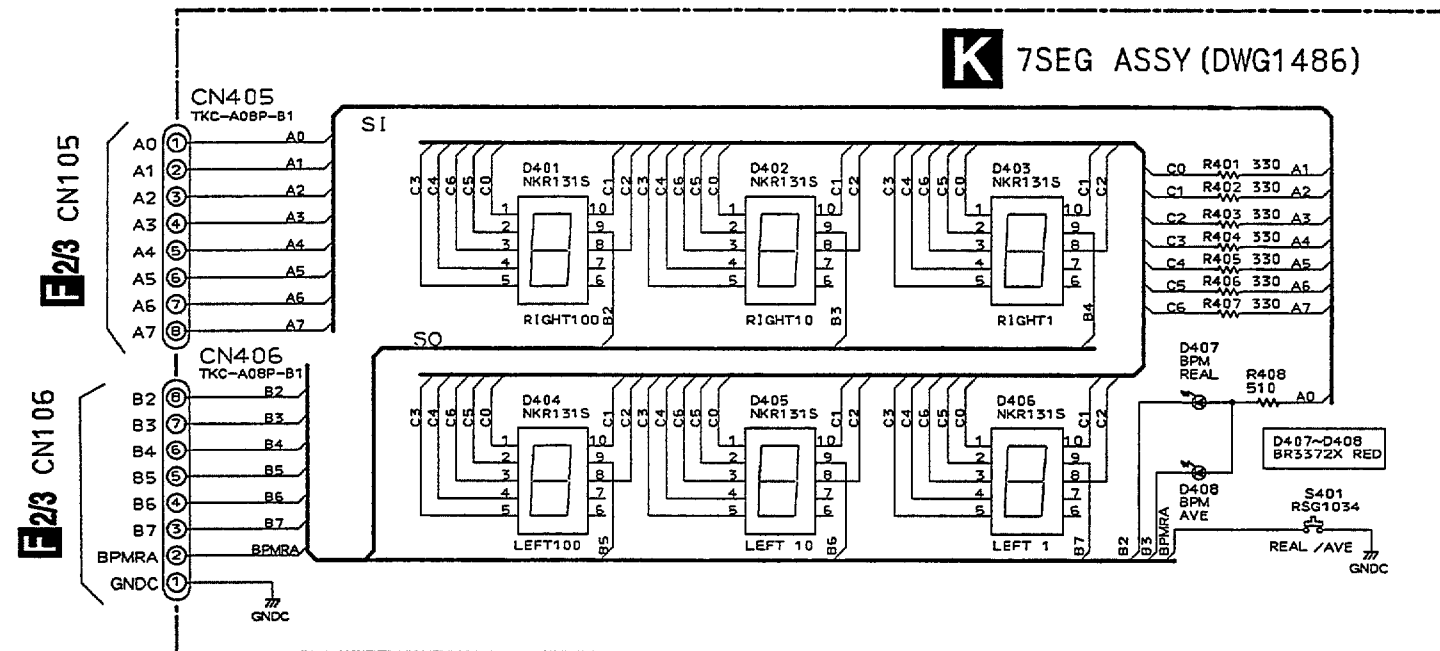
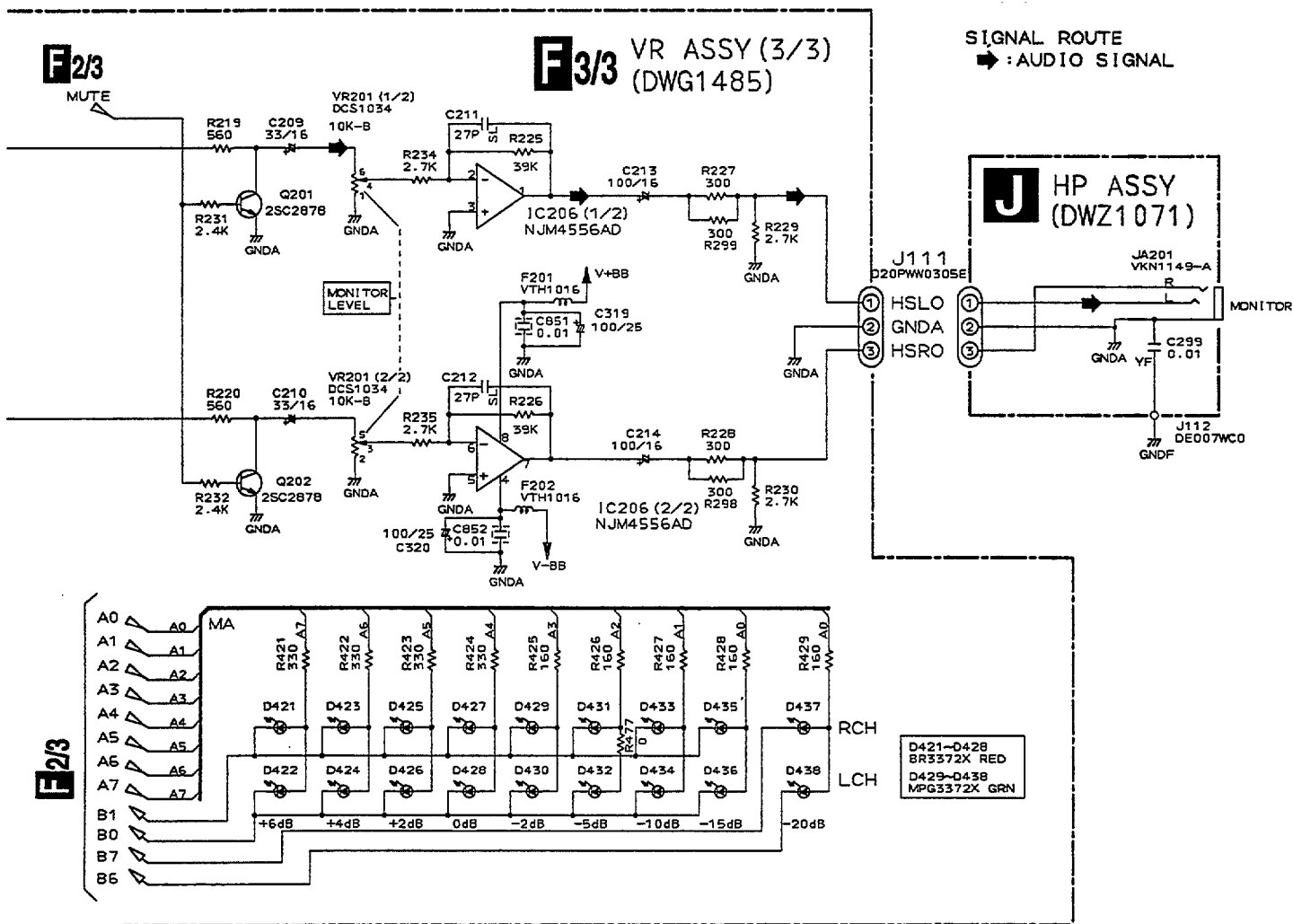
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	-11.7	17	—
2-12	0	18	—
13	6.4m	19-25	0
14	0	26	—
15	5.0	27	0
16	7.0m	28	11.7



SWITCHES (Underline indicates switch position):

- S201: MONITOR SELECTOR CH-1
- S202: MONITOR SELECTOR CH-2
- S203: MONITOR SELECTOR MASTER
- S205: FADER START CH-1
- S206: FADER START CH-2
- S207: CH / CROSS
- S402: INPUT LEVEL CH-1 - CH-2

F3/3 VR ASSY (3/3)
(DWG1485)



SWITCHES (Underline indicates switch position):
S401: REAL/AVERAGE

4. PCB CONNECTION DIAGRAM

4.1 TERMINAL ASSY

A TERMINAL ASSY

IC603 IC607
IC606 Q605

IC601
Q606

IC503

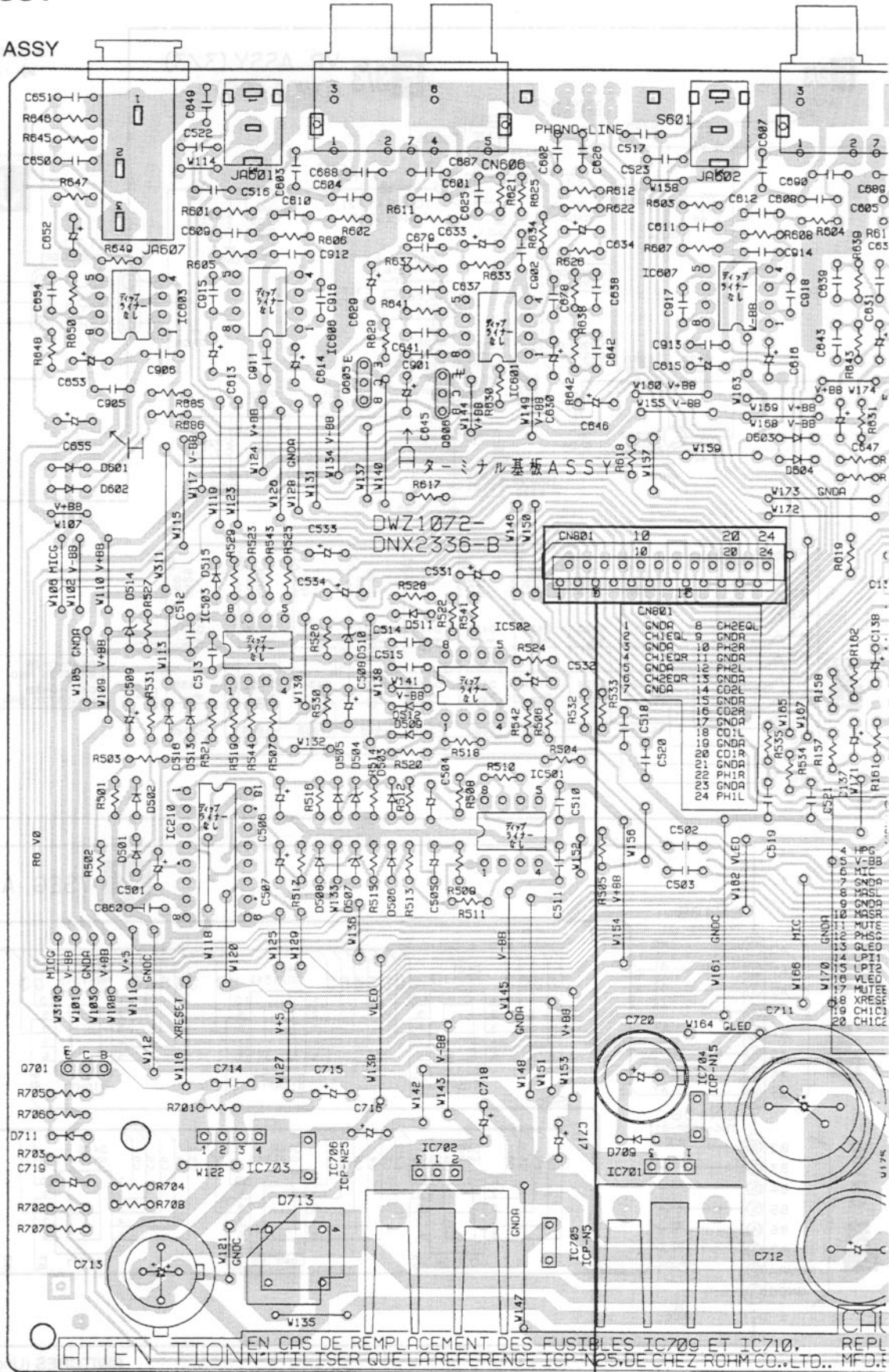
IC502

IC501
IC210

Q701 IC704

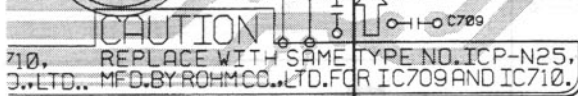
IC703 IC701
IC706 IC702

IC705



F CN101

SIDE A



1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Q601
|
Q604

Q607 IC605
Q608

IC112

IC111

IC208

IC707

IC708

IC709

IC710

3. The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

A diagram of a P.C. board with various components labeled. On the left, a 'Connector' is shown. In the center, a 'Capacitor' is depicted. Below the board, a 'Chip Part' is indicated. The board is labeled 'P.C. Board'. The top edge is labeled 'SIDE A' and the bottom edge is labeled 'SIDE B'.

F VR ASSY

K CN405

A CN801

A CN802

Q401
Q403
Q404

VR114
VR101

VR112
VR103

IC312

IC115

Q300
Q301

VR105

IC206

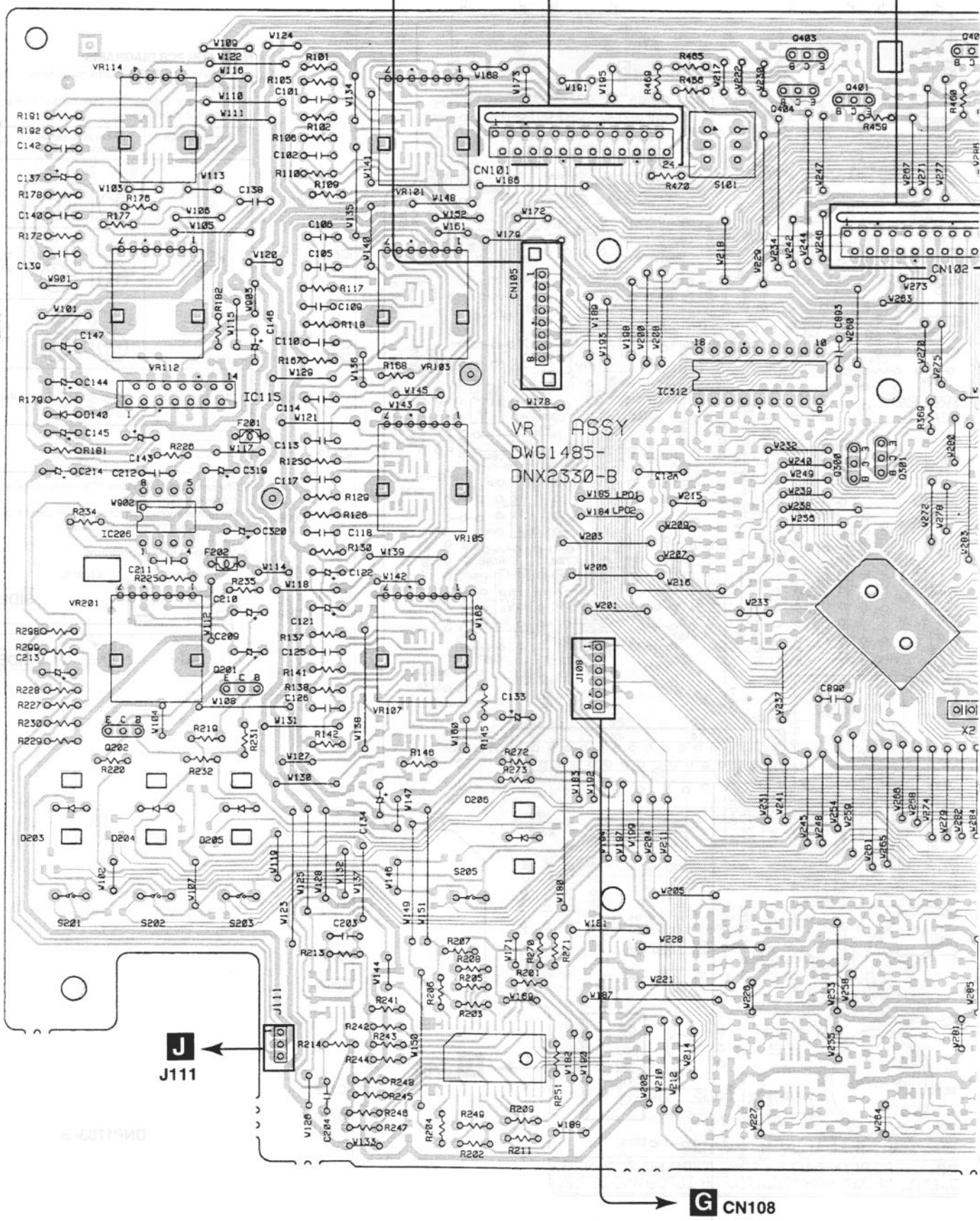
VR201
VR107

Q201

Q202

J J111

G CN108



SIDE A

DNP1782-B

K CN406

Q402
Q405
Q406

VR102

VR104
Q306
Q311

VR106

IC210

Q313

VR108

Q312

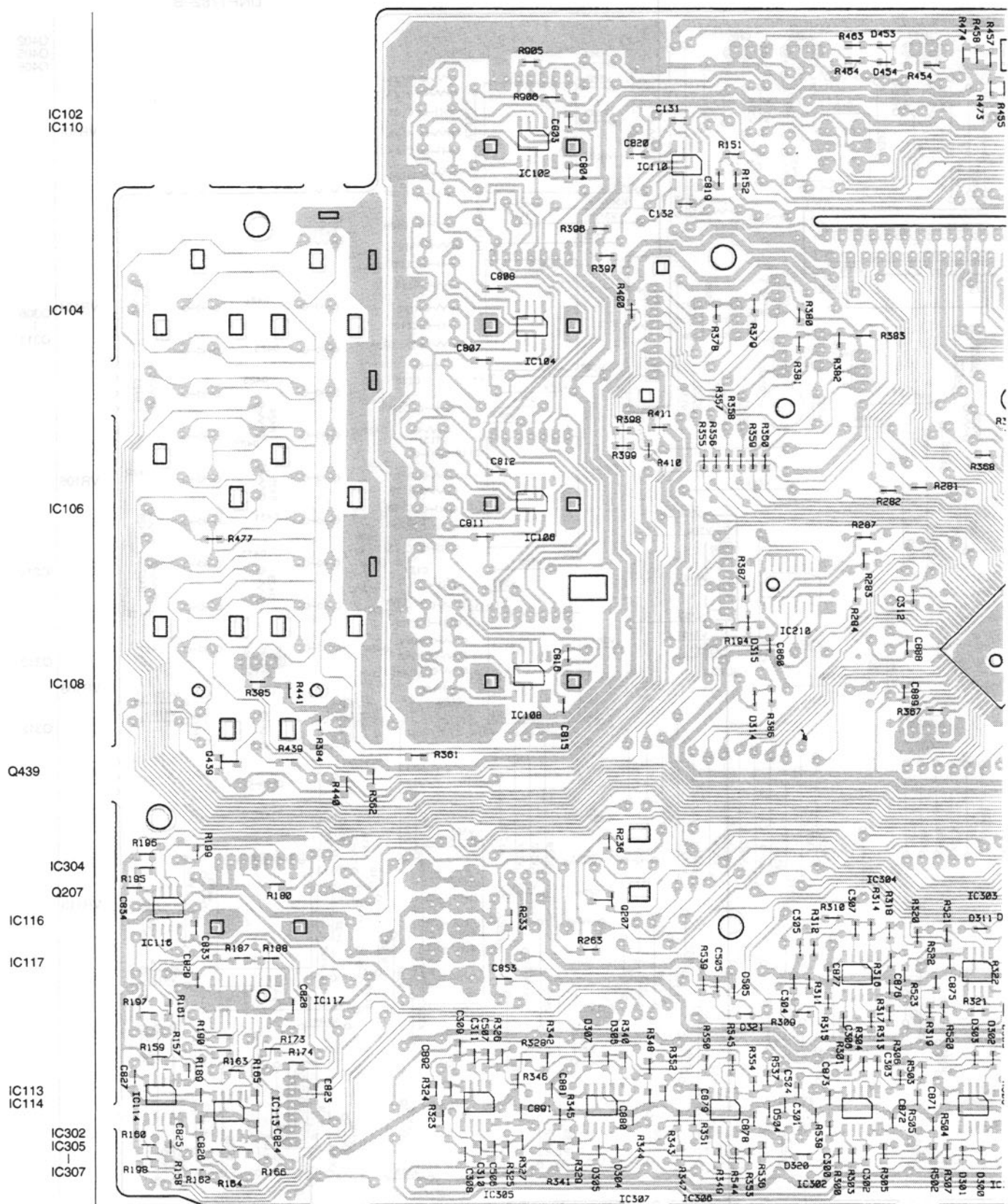
VR113

H CN109

I CN110

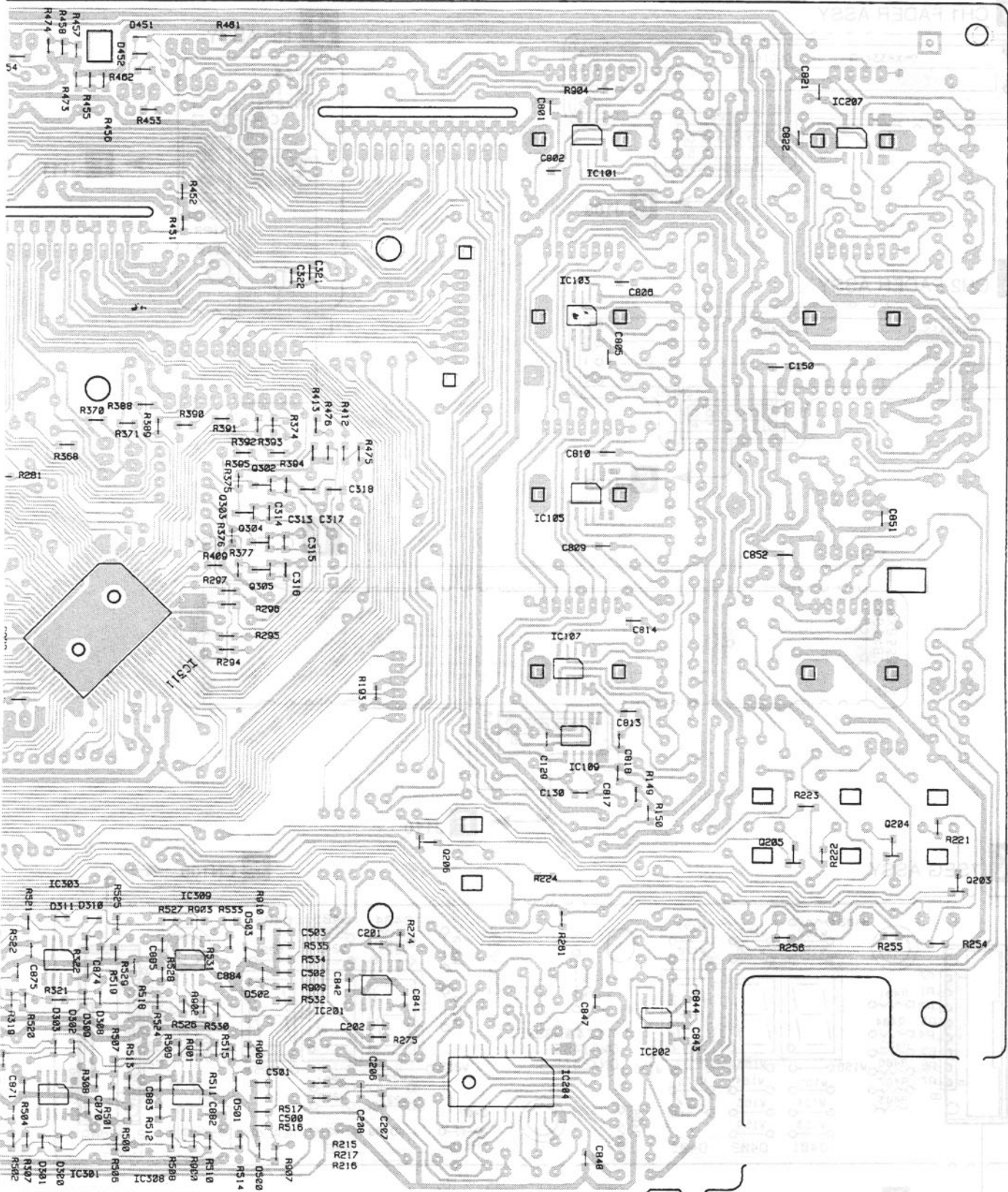
SIDE B

DNP1782-B

F VR ASSY

4.3 CH1 FADER ASSY, CH2 FADER ASSY, C.F. ASSY, HP ASSY AND 12SEG ASSY

SIDE A



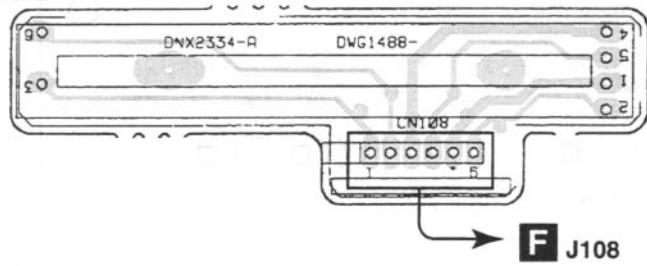
- IC101
- IC107
- IC103
- Q302
- Q305
- IC105
- IC311
- IC107
- Q201
- Q202
- IC109
- Q204
- Q205
- Q206
- IC303
- IC309
- IC202
- IC204
- IC301
- IC308

4.3 CH1 FADER ASSY, CH2 FADER ASSY, C. F. ASSY, HP ASSY AND 7SEG ASSY

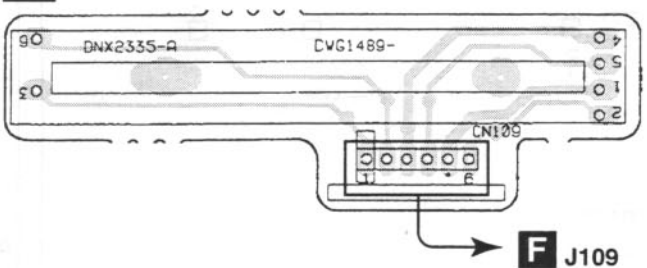
DNP1782-B

SIDE A

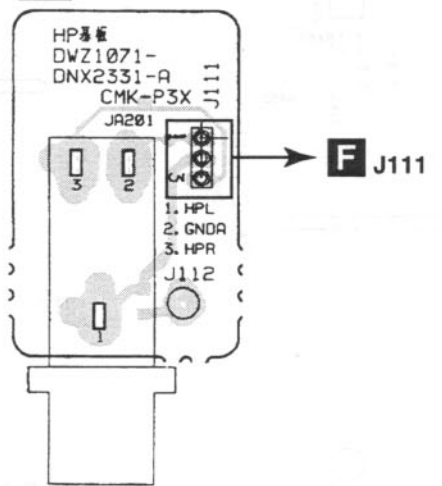
G CH1 FADER ASSY



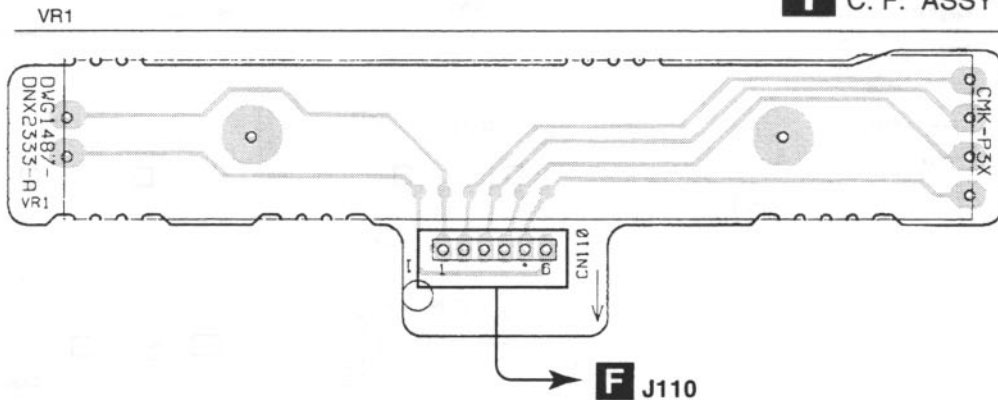
H CH2 FADER ASSY



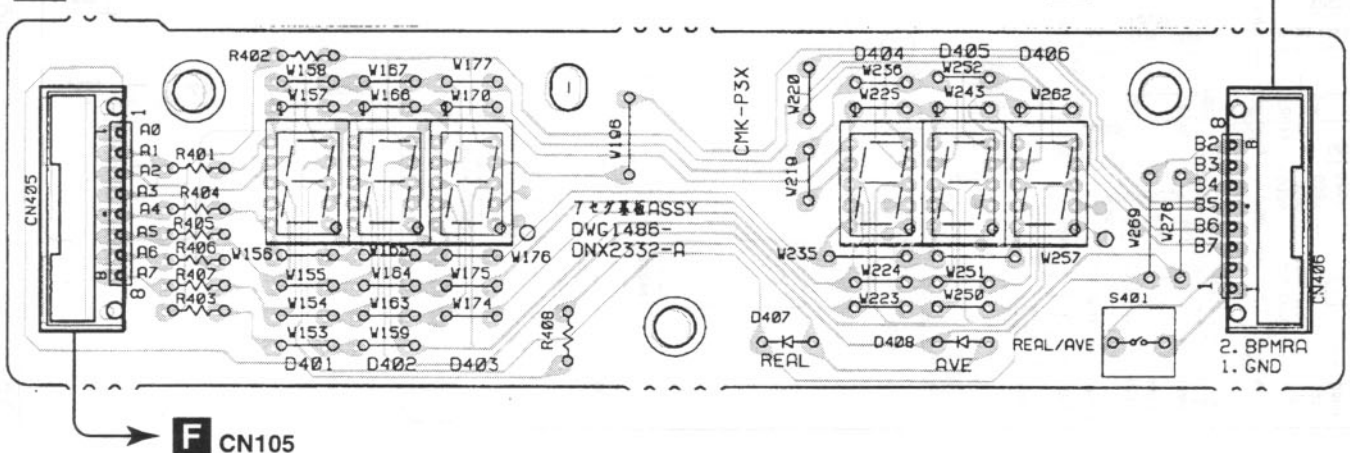
J HP ASSY



I C. F. ASSY

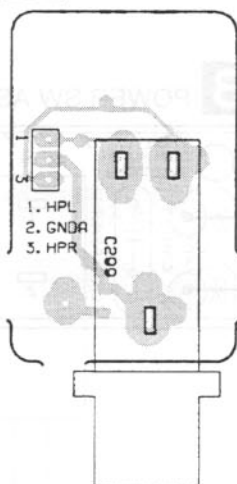


K 7SEG ASSY

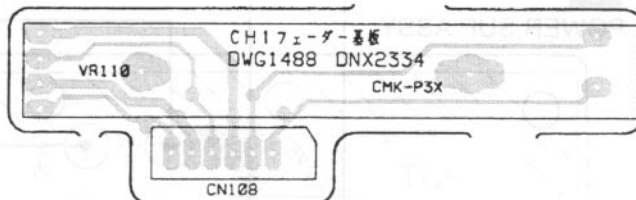


SIDE B

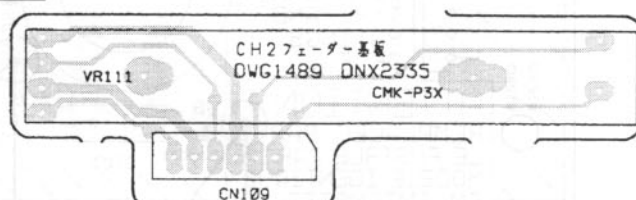
J HP ASSY



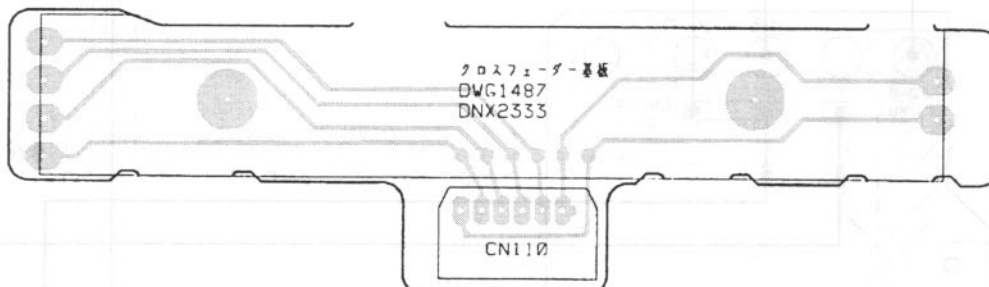
G CH1 FADER ASSY



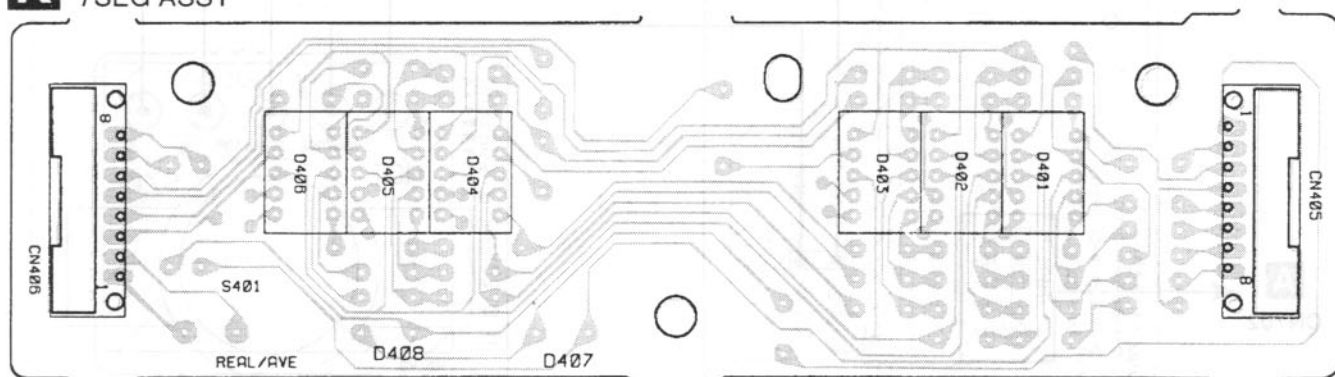
H CH2 FADER ASSY



I C. F. ASSY



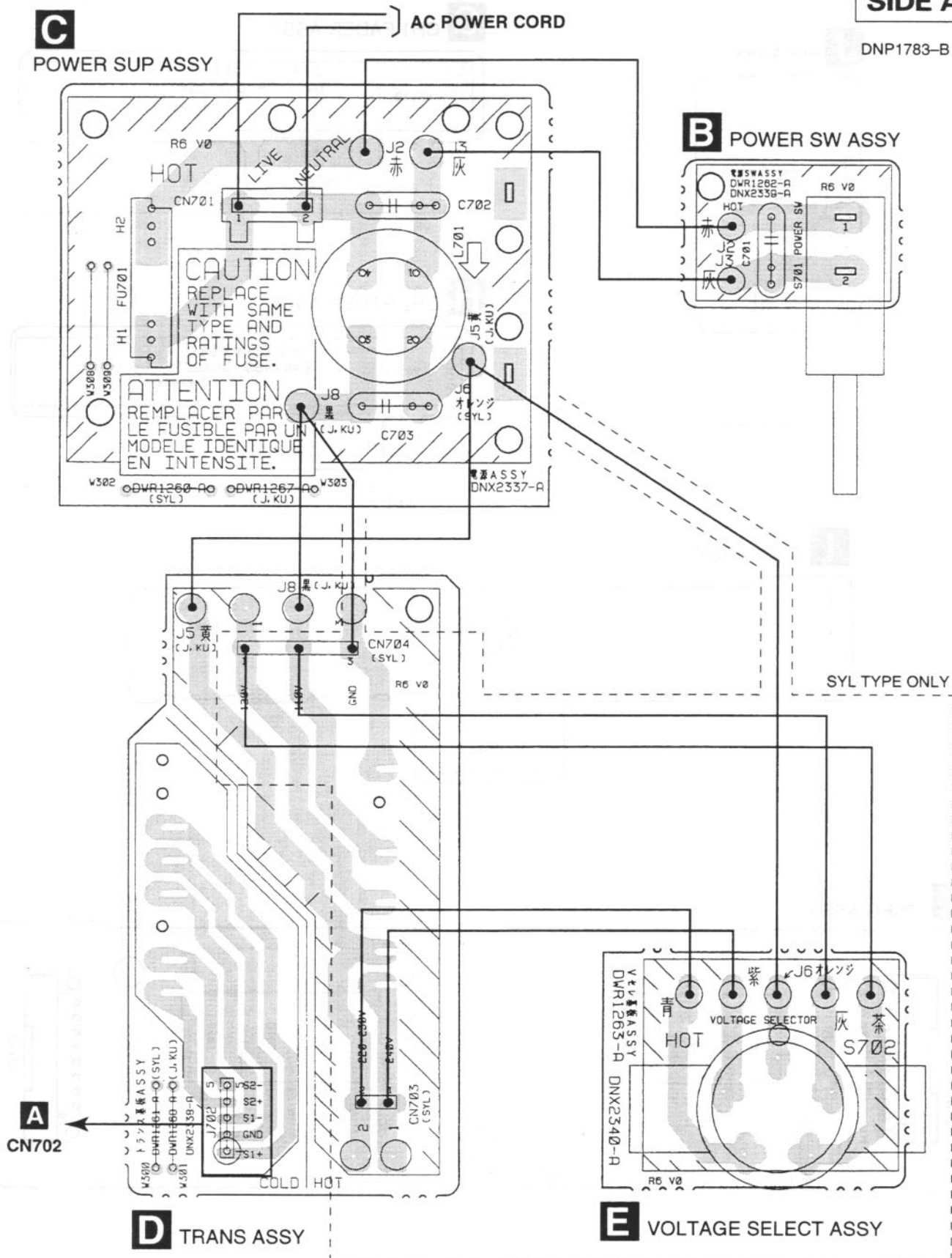
K 7SEG ASSY



4.4 POWER SW ASSY, POWER SUP ASSY, TRANS ASSY AND VOLTAGE SELECT ASSY

SIDE A

DNP1783-B



5. PCB PARTS LIST

NOTES : ● Parts marked by “NSP” are generally unavailable because they are not in our Master Spare Parts List.

- The Δ mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by $J = 5\%$, and $K = 10\%$).

$560\ \Omega \rightarrow 56 \times 10^1 = 561 \dots\dots\dots RD1/4PU \boxed{5} \boxed{6} \boxed{1} J$

$47k\ \Omega \rightarrow 47 \times 10^3 = 473 \dots\dots\dots RD1/4PU \boxed{4} \boxed{7} \boxed{3} J$

$0.5\ \Omega \rightarrow R50 \dots\dots\dots RN2H \boxed{R} \boxed{5} \boxed{0} K$

$1\ \Omega \rightarrow 1R0 \dots\dots\dots RS1P \boxed{1} \boxed{R} \boxed{0} K$

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

$5.62k\ \Omega \rightarrow 562 \times 10^1 = 5621 \dots\dots\dots RN1/4PC \boxed{5} \boxed{6} \boxed{2} \boxed{1} F$

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol & Description	Part No.		Remarks
		DJ-M300/KUC	DJ-M300/SYL	
NSP	MAIN ASSY	DWM2026	DWM2026	*
	— VR ASSY	DWG1485	DWG1485	
NSP	— 7SEG ASSY	DWG1486	DWG1486	
NSP	— C. F. ASSY	DWG1487	DWG1487	
NSP	— CH1 FADER ASSY	DWG1488	DWG1488	
NSP	— CH2 FADER ASSY	DWG1489	DWG1489	
NSP	— HP ASSY	DWZ1071	DWZ1071	
NSP	SUB ASSY	DWM2028	DWM2027	
NSP	— POWER SW ASSY	DWR1262	DWR1262	
NSP	— POWER SUP ASSY	DWR1267	DWR1260	
NSP	— TRANS ASSY	DWR1268	DWR1261	
NSP	— VOLTAGE SELECT ASSY	Not used	DWR1263	
	— TERMINAL ASSY	DWZ1072	DWZ1072	

Note *: Although DWR1267 and DWR1260 are different in part number, they consist of the same components.

■ CONTRAST OF PCB ASSEMBLIES

TRANS Assy

DWR1268 and DWR1261 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		DWR1268	DWR1261	
	CN704 3P-VH Connector	Not used	B3P5-VH	*

*: Refer to **D** in the "3. SCHEMATIC DIAGRAM".

PCB PARTS LIST

Mark	No.	Description	Parts No.
------	-----	-------------	-----------

E VOLTAGE SELECT ASSY (SYL TYPE ONLY)

SWITCHES AND RELAYS

△	S702		DSB1014
---	------	--	---------

OTHERS

△	J5	CONNECTOR ASSY	DKP3293
△	J4	CONNECTOR ASSY	DKP3294

PCB PARTS LIST for DJ-M300/KUC

F VR ASSY

SEMICONDUCTORS

IC117, IC210	BU4053BCF
IC312	LB1740
IC115	M51131L
IC206	NJM4556AD
IC311	PD4755A
IC204	TC9162AF
IC113, IC114, IC116, IC201	XLA4558F-P
IC301-IC309	XLA4558F-P
IC101-IC110, IC202, IC207	XLA4560F
Q301, Q401, Q402	2SC1740S
Q300	2SC2458
Q201, Q202	2SC2878
Q403-Q406	2SD1302
Q306-Q313	2SD1919
Q203-Q207, Q302-Q305, Q439	DTC124EK
D140	1SS254
D300-D311, D320, D321	1SS355
D451-D454	1SS355
D421-D428, D439	BR3372XJ240K
D203-D207	MAA3372XJ240K
D429-D438	MPG3372XJ240K
D314, D315	UDZ3.6B
D500-D505	UDZ5.6B

SWITCHES AND RELAYS

S207	DSH1036
S101, S102	DSK1010
S201-S203, S205, S206, S402	VSG1008

CAPACITORS

C101-C104	CCCSL100D50
C142, C203, C204, C211, C212	CCCSL270J50
C109-C112	CCCSL271J50
C140	CCCSL470J50
C207, C208	CCSQSL101J50
C129-C132, C201, C202	CCSQSL270J50
C148, C149	CEAL1R0M50
C146	CEAL100M16
C135, C136	CEAL470M16
C147	CEAS1R0M50
C121-C124, C143, C144	CEAS100M16
C213, C214	CEAS101M16
C319, C320	CEAS101M25
C145	CEAS220M16
C209, C210	CEAS330M16
C137	CEAS470M16
C133, C134	CEJA470M16
C138	CFTXA224J50
C113-C116	CFTXA474J50
C125-C128	CFTYA563J50

Mark	No.	Description	Parts No.
------	-----	-------------	-----------

C890, C893	CKPUYF103Z25
C206	CKSQYB102K50
C504, C505	CKSQYB183K50
C308-C311, C313-C316	CKSQYF103Z50
C506, C507, C801-C829	CKSQYF103Z50

C833, C834, C841-C844	CKSQYF103Z50
C847, C848, C851-C853, C860	CKSQYF103Z50
C870-C885, C888, C889	CKSQYF103Z50
C891, C892	CKSQYF103Z50
C150, C300-C307, C321, C322	CKSQYF104Z25

C312	CKSQYF473Z50
C139	CQMA222J50
C105-C108	CQMA473J50
C117-C120	CQMA562J50

RESISTORS

R182	RD1/4PU102J
R172, R176, R177, R179, R181	RD1/4PU103J
R430	RD1/4PU103J
R202, R204, R206, R208	RD1/4PU133J
R192	RD1/4PU123J
R125-R128	RD1/4PU131J
R213, R214, R369	RD1/4PU153J
R425-R429	RD1/4PU161J
R201, R203, R205, R207	RD1/4PU164J
R117-R120, R137-R140	RD1/4PU181J
R241-R247, R270-R273	RD1/4PU223J
R231, R232, R465, R466-R468	RD1/4PU242J
R229, R230, R234, R235	RD1/4PU272J
R201, R203, R205, R207	RD1/4PU273J
R227, R228, R298, R299	RD1/4PU301J
R191, R469-R472	RD1/4PU302J
R421-R424	RD1/4PU331J
R178	RD1/4PU332J
R225, R226	RD1/4PU393J
R105-R108	RD1/4PU433J
R141-R144	RD1/4PU473J
R101-R104, R109-R112	RD1/4PU512J
R145-R148	RD1/4PU512J
R219, R220	RD1/4PU561J
R167-R170	RD1/4PU623J
R129-R132	RD1/4PU753J
R209, R211	RD1/4PU912J

VR114 (10 kΩ-B)	DCS1030
VR103-VR108 (10 kΩ-B)	DCS1032
VR113, VR201 (10 kΩ-B)	DCS1034
VR101, VR102 (10 kΩ-B)	DCS1042
VR112 (100 kΩ-B)	DCS1040

Other Resistors	RS1/10S□□□□
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OTHERS

CN101	CONNECTOR 24P	52492-2420
CN102	CONNECTOR 31P	52492-3120
J11		DB0241NS0
J12		DB218NS0
J110	CONNECTOR	PG06MR-E15
CN105, CN106	CONNECTOR	TKC-A08X-B1
	PCB BINDER	VEF1008
X2 (4.19MHz)	VSS1014	VTH1016
F201, F202		

Mark	No.	Description	Parts No.
K	7SEG ASSY		
	SEMICONDUCTORS		
	D407, D408		BR3372XJ210K
	D401-D406		NKR131S
	SWITCHES AND RELAYS		
	S401		RSG1034
	RESISTORS		
	Other Resistors		RD1/4PU□□□J
	OTHERS		
	CN405, CN406	CONNECTOR PLUG	TKC-A08P-B1

I	C. F. ASSY		
	RESISTORS		
	VR1 (10 kΩ-B)		DCV1006
	OTHERS		
	CN110	MT CONNECTOR 6P	173979-6

G	CH1 FADER ASSY		
	RESISTORS		
	VR110 (10 kΩ-B)		DCV1005
	OTHERS		
	CN108	6P JUMPER CONNECTOR	52151-0610

H	CH2 FADER ASSY		
	RESISTORS		
	VR111 (10 kΩ-B)		DCV1005
	OTHERS		
	CN109	6P JUMPER CONNECTOR	52151-0610

J	HP ASSY		
	CAPACITORS		
	C299		CKSQYF103Z50
	OTHERS		
	J111	3P JUMPER WIRE	D20PWW0305E
	JA201	HEADPHONE JACK	VKN1149

B	POWER SW ASSY		
	SWITCHES AND RELAYS		
	△ S701		PSA-009
	CAPACITORS		
	△ C701 (10000 pF/250V)		ACG7020

Mark	No.	Description	Parts No.
C	POWER SUP ASSY		
	COILS AND FILTERS		
	△ L701		VTL-004
	CAPACITORS		
	△ C702, C703 (10000 pF/250V)		ACG7020
	OTHERS		
	△ H1, H2	PCB BINDER TERMINAL FUSE HOLDER	DEF1015 RKC-061 RKR1003

D	TRANS ASSY		
	TRANS Assy has no service part.		

A	TERMINAL ASSY		
	SEMICONDUCTORS		
	△ IC701		BA12T
	△ IC210		BU4053BC
	△ IC704		ICP-N15
	△ IC709, IC710		ICP-N25
	△ IC705		ICP-N5
	IC111, IC112		M51131L
	IC601-IC603		NJM2068D
	IC501-IC503		NJM4558DX
	IC208, IC604-IC608		NJM4580D
	△ IC702		NJM79M12FA
	△ IC703		PQ05RR12
	△ Q701		2SC2458
	Q601-Q604		2SC2878
	Q605-Q608		2SD2878
	△ D701-D704		11EQS06
	D101, D102, D501-D503		1SS254
	D505, D506, D508, D509		1SS254
	D511-D513, D515, D516		1SS254
	D601-D604, D711		1SS254
	D504, D507, D510, D514		MTZJ5.6B
	△ D713		S2VB20
	△ D709, D710, D714		S5688G

	SWITCHES AND RELAYS		
	S601, S602		VSH1007

	CAPACITORS		
	C601-C612, C625-C628		CCCSL101J50
	C650, C651, C670-C677		CCCSL101J50
	C231, C232, C657-C660		CCPUSL100J50
	C654		CCPUSL220J50
	C504, C505		CEANP100M16
	C719		CEANP2R2M50
	C695-C698		CEANPR33M50
	C137-C140		CEAS1R0M50
	C141-C144, C233, C234		CEAS100M16
	C531-C534, C633-C636		CEAS100M16

Mark	No.	Description	Parts No.
	C652, C653, C655, C691-C694		CEAS100M16
	C821, C822		CEAS100M16
	C715		CEAS101M10
	C717, C718		CEAS101M16
	C713		CEAS102M16
	C145, C146, C629-C632		CEAS220M16
	C501, C506-C509		CEAS2R2M50
	C716		CEAS330M16
	C613-C616, C645-C648		CEAS470M16
	C720		CEAS471M50
	C649, C685-C690		CGCYX473K25
	C510-C515, C518-C523		CKCYF103Z50
	C704-C710, C714, C905, C906		CKCYF103Z50
	C502, C503, C516, C517		CKCYF473Z50
	C699, C700, C856, C857, C860		CKPUYF103Z25
	C901-C904, C907-C914		CKPUYF103Z25
	C637-C640		CQMA222J50
	C641-C644		CQMA681J50
	C711, C712		DCH1063

RESISTORS

All Resistors

RD1/4PU□□□J

OTHERS

CN801	FFC CONNECTOR 24P	52045-2445
CN802	FFC CONNECTOR 31P	52045-3145
CN606-CN608	4P PIN JACK	AKB7015
	HEAT SINK	DNG1073
	HEAT SINK	DNG1073
CN702	5P JUMPER CONNECTOR	KPC5
JA601, JA602	JACK	RKN1004
JA607	MIC JACK	VKN1147
KN101	EARTH METAL FITTING	VNF1084

6. ADJUSTMENTS

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

7.1 IC

■ PD4755A (IC311: VR ASSY)

● System Control Micro-computer

● Pin Function

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

No.	Port	Pin Name	I/O	Description
1 5	P94/FIP6 P90/FIP2	GRID6 GRID2	O	7seg. display output
6	P81/FIP1	GRID1		
7	P80/FIP0	GRID0		
8	VDD	—	—	Power supply
9	P27/SCK0	ADSW1	O	Switching analog SW signal 1
10	P26/S00/SB1	ADSW2	O	Switching analog SW signal 2
11	P25/SI0/SB0	ADSW3	O	Switching analog SW signal 3
12	P24/BUSY	—	—	—
13	P23/STB	—	—	—
14	P22/SCK1	IC CLK	I	Analog SW IC serial communication clock output
15	P21/SO1	IC DATA	O	Analog SW IC serial data output
16	P20/SI1	—	—	—
17	XRESET	XRST	O	u - COM. reset L: Reset
18	P74	—	—	—
19	P73	—	—	—
20	AVSS	GRF	—	A/D converter GND
21	P17/ANI7	AD7	I	A/D converter input CH7
22	P16/ANI6	AD6	I	A/D converter input CH6
23	P15/ANI5	AD5	I	GFB3 CH2 "H" level BPM signal
24	P14/ANI4	AD4	I	GFB2 CH2 "M" level BPM signal
25	P13/ANI3	AD3	I	GFB1 CH2 "L" level BPM signal
26	P12/ANI2	AD2	I	GFB3 CH1 "H" level BPM signal
27	P11/ANI1	AD1	I	GFB2 CH1 "M" level BPM signal
28	P10/ANI0	AD0	I	GFB1 CH1 "L" level BPM signal
29	AVDD	—	—	A/D converter analog power supply
30	AVREF	—	—	A/D converter reference voltage input

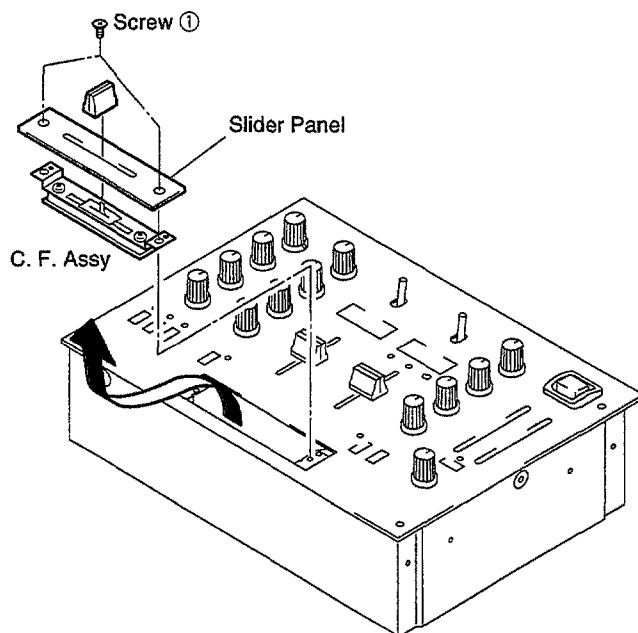
No.	Port	Pin Name	I/O	Description
31	P04/XT1	—	—	Connect to Crystal for Sub system clock oscillation
32	XT2	—		
33	VSS	—	—	GND
34	X1	—	—	Connect to Crystal for Main system clock oscillation
35	X2	—		
36	P37	MCH1	—	CH1 Monitor SW ON: L
37	P36/BUZ	MCH2	—	CH2 Monitor SW ON: L
38	P35/PCL	MMST	—	Master Monitor SW ON: L
39	P34/TI2	CH2 ON	O	CH2 Fader start on LED H: Light up
40	P33/TI1	CH1 ON	O	CH1 Fader start on LED H: Light up
41	P32/TO2	—	—	—
42	P31/TO1	LVLCH	—	Switching level meter L: ON
43	P30/TO0	PWM	O	Switching feder signal H: ON
44	P03/INTP3/CI0	FSC2	—	CH2 FD control ON/OFF L: ON
45	P02/INTP2	FSCX	—	Cross FD control H: Cross, L: CH
46	P01/INTP1	STB	O	Analog SW IC selection signal
47	P00/INTP0/TI0	—	—	—
48	IC (VPP)	—	—	Internal connection
49	P72	—	—	—
50	P71	—	—	—
51	P70	—	—	—
52	—	—	—	—
53	P127/FIP33	MUTE	O	Mute control L: ON
54	P126/FIP32	FSC1	—	CH1 FD control ON/OFF L: ON
55	P125/FIP31	METER	O	CH meter LED H: Light up
56	P124/FIP30	CH1LED	O	CH1 monitor LED H: Light up
57	P123/FIP29	LPO1	O	Switching LINE1/PHONO1 L: LINE
58	P122/FIP28	LPO2	O	Switching LINE1/PHONO1 L: LINE

No.	Port	Pin Name	I/O	Description
59	P121/FIP27	LPI1	—	LINE1/PHONO1 SW L: LINE
60	P120/FIP26	LPI2	—	LINE2/PHONO2 SW L: LINE
61	P117/FIP25	CH2LED	O	CH2 monitor LED H: Light up
62	P116/FIP23	MASLED	O	Master monitor LED H: Light up
63	P115/FIP22	CH1CT1	O	Player control signal CH1 START: H CH1 STOP: H CH2 START: H CH2 STOP: H
64	P114/FIP21	CH1CT2	O	
65	P113/FIP20	CH2CT1	O	
66	P112/FIP19	CH2CT2	O	
67	P111/FIP18	BPMRA	—	Switching BPM REAL/AVE L: ON
68	P110/FIP17	SEG8	—	7 seg display output
69	P107/FIP17	SEG7		
70	P106/FIP16	SEG6		
71	VLOAD	—	—	Connect to FIP driver pull-down resistor
72 77	P105/FIP15 P100/FIP10	SEG5 SEG0	—	7 seg display output
78	P97/FIP9	—	—	
79	P96/FIP8	—	—	
80	P95/FIP7	GRID7	—	

7.2 DISASSEMBLY

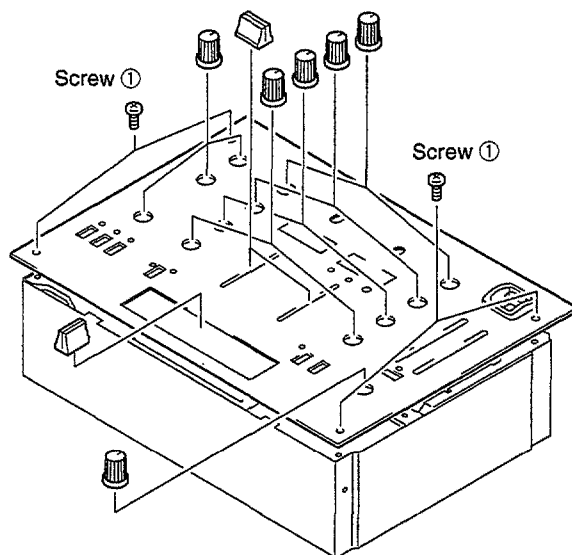
■ Cross-Fader Section

1. Remove the Fader Knob.
2. Remove the two screws ① fixing the Slider Panel.
3. Raise the C. F. Assy at the front and then raise the entire unit.



■ Control Panel Section

1. Remove all knobs from the Control Panel surface.
2. Remove the four screws ①.

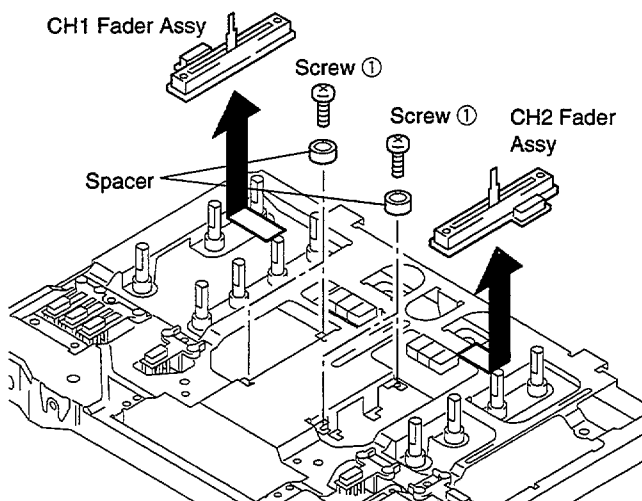


■ Knob Colors

EQ-HI: Gray (Red)
 EQ-MID: Gray (Yellow)
 EQ-LOW: Gray (Green)
 TRIM: Dark Gray
 Other: BLACK

■ Removal of the CH1 Fader Assy and CH2 Fader Assy

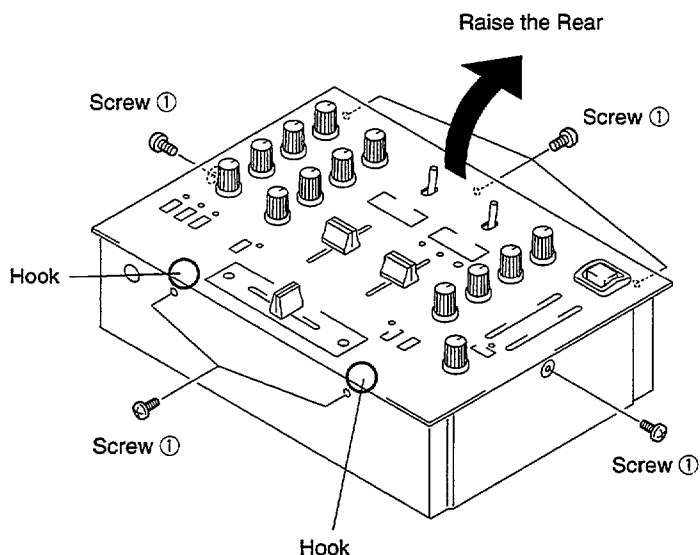
1. Remove the Control Panel. (Refer to the preceding item.)
2. Remove the two screws ① and spacer fixing the CH1 Fader Assy.
3. Slide the CH1 Fader Assy to the side and raise it.
4. Proceed in the same way for CH2 Fader Assy.



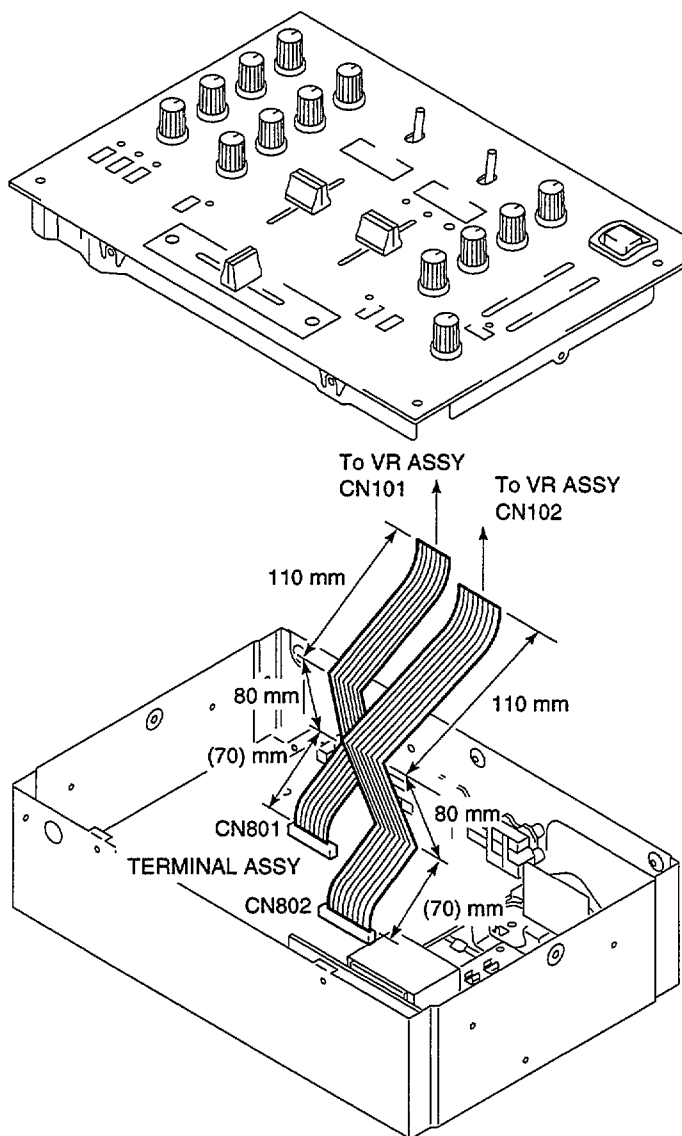
■ Screw Removal for Unit Diagnosis

1. Remove the two screws ① on both sides, the two screws ② at the front, and the three screws ③ at the rear in this order.
2. Raise the rear and remove the Control Panel.

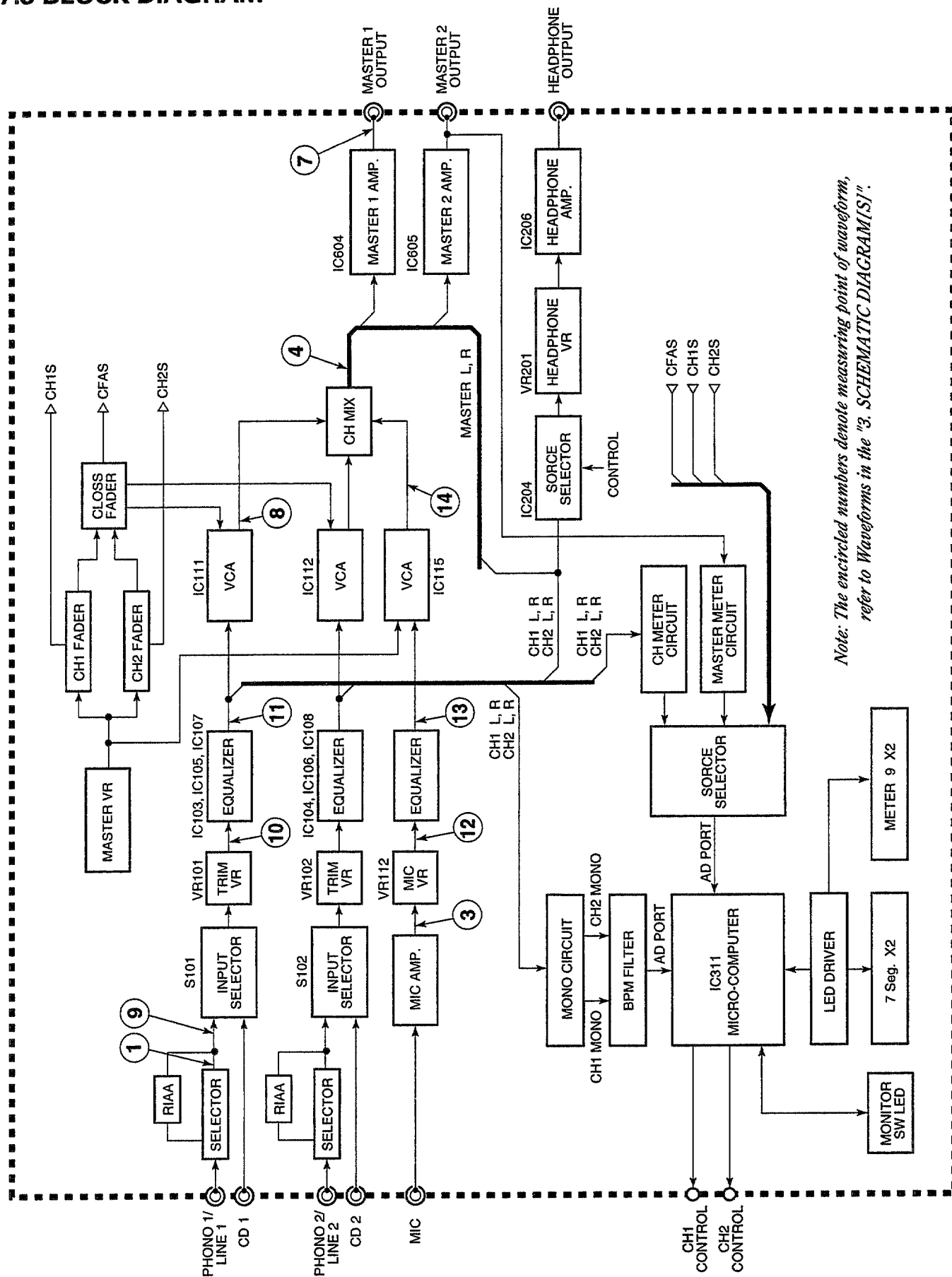
Note: At the time of installation, install in reverse order of the removal (Rear → Front → Sides).



■ Bending Positions for the flexible wiring of the FFC card



7.3 BLOCK DIAGRAM



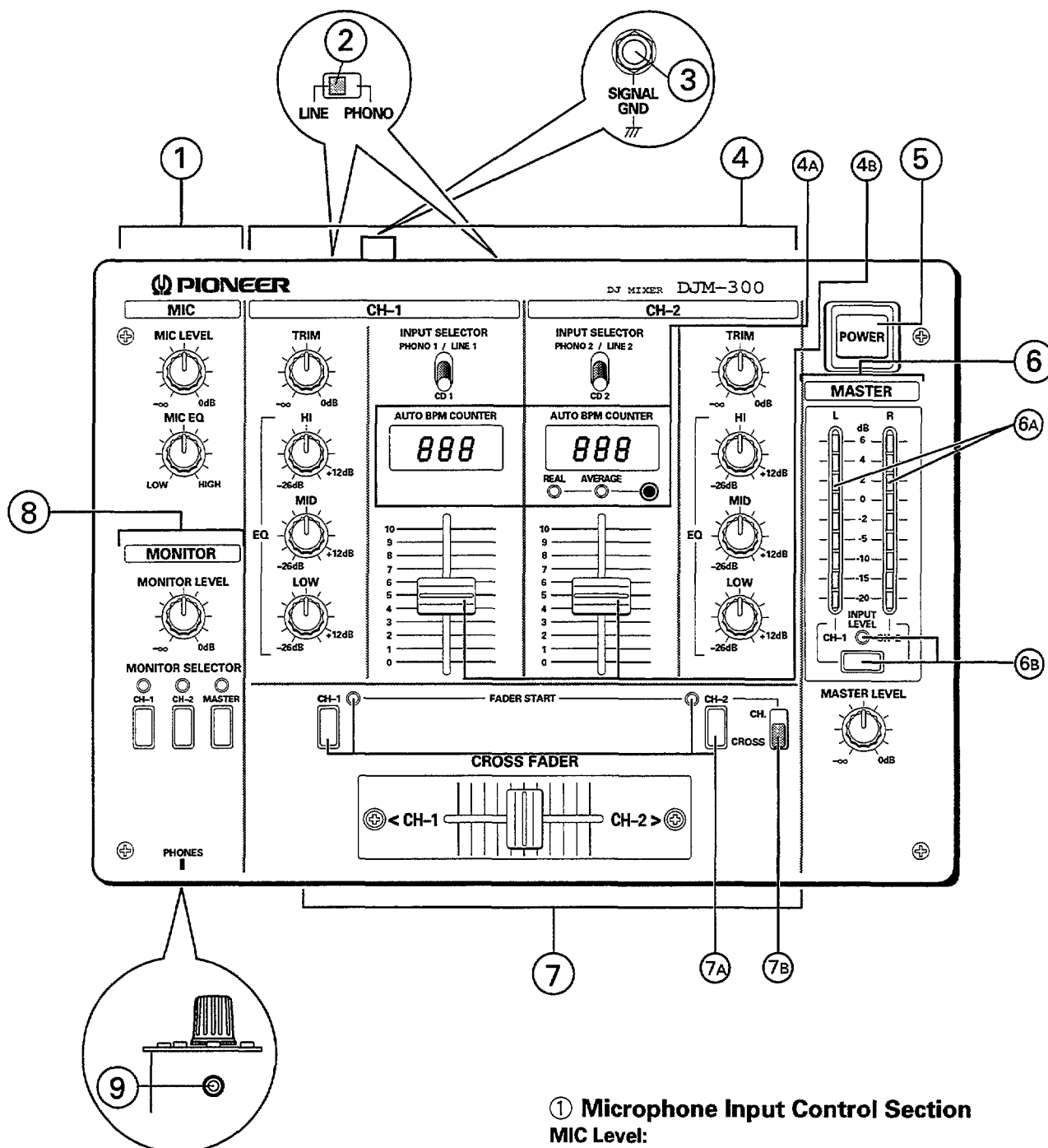
Note: The encircled numbers denote measuring point of waveform, refer to Waveforms in the "3. SCHEMATIC DIAGRAM[S]".

8. PANEL FACILITIES AND SPECIFICATIONS

■ PANEL FACILITIES

Control panel

② and ③ shows the rear view, while ⑨ shows the front view.



① Microphone Input Control Section

MIC Level:

Used for adjusting the volume of the microphone.

MIC EQ (Microphone Equalizer):

Used for adjusting the sound quality of the microphone.
Flat at center click.

Emphasizes the high tone (treble) when rotated to the right.

Emphasizes the low tone (bass) when rotated to the left.

② Rear Panel Input Source Selection Switch

Used for selecting the device connected to PHONO 1/LINE 1 and PHONO 2/LINE 2 input terminals.

PHONO: Analog player (MM output)

LINE: Audio equipment whose output level is the line level

NOTE:

Do not switch with the power ON.

When switched, the master output will be muted.

③ Ground Terminal (SIGNAL GND)

Connects to the GND cord of the analog player.

This terminal is for only an analog player, not for a safety ground.

④ CH1, CH2 Input Control Section

Input selection switch (INPUT SELECTOR):

Selects which one of the two units connected to each CH to use.

CH1: Switches between PHONO 1/LINE 1 and CD1

CH2: Switches between PHONO 2/LINE 2 and CD2

TRIM:

Used for adjusting the level of the input signal.

The level increases when rotated to the right. (To +6 dB)

The level decreases when rotated to the left. (To $-\infty$)

EQ (Equalizer):

HI:

Used for adjusting the high tone.

Flat at center click.

Increases when rotated to the right.

Decreases when rotated to the left.

MID:

Used for adjusting the middle tone.

Flat at center click.

Increases when rotated to the right.

Decreases when rotated to the left.

LOW:

Used for adjusting the low tone.

Flat at center click.

Increases when rotated to the right.

Decreases when rotated to the left.

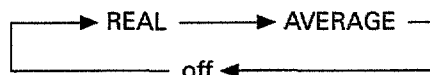
④A BPM Display

Counter:

- Displays the BPM of the source input to CH1 and CH2 digitally. Displays "---" when BPM could not be measured for more than 5 seconds or when switched off. Displays in real mode when the power is turned on.

Real-mode/average mode selection button and indicator:

Each time the button is pressed, the display mode and indicator light switch as follows.



(When REAL is selected.)

Displays the measured BPM value at real time.

The measurement error is greater than AVERAGE.

Blinks while measuring.

(When AVERAGE is selected.)

The display timing becomes slower, but the display will be stabilized by the averaging process.

While measuring, the previous value will remain displayed.

④B Channel Fader Volume

Used for adjusting the volume of CH1 to CH2.

⑤ Power Supply Switch (POWER)

Turns ON/OFF the power of this unit.

When the power is turned ON, the unit will be muted for about 2 seconds to protect the connected units.

⑥ Master Control Section

⑥A Level meter

The level meter display mode selection switch enables two levels to be displayed. When the level meter display mode indicator is off, the master level is displayed. When it is lit, the CH1 and CH2 input levels are displayed. The peak level is held for 2 seconds.

The display range is -20 dB to +6 dB.

⑥B Level Meter Display Mode Selection Button and Indicator

Used for switching the level meter display mode.

Each time the button is pressed, the mode will be switched between the master level display and input level display (CH1, CH2).

The INPUT LEVEL indicator is lit during the input level display.

When the power is turned on, the mode will first be set to the master level display.

⑦ Cross Fader Section

Cross Fader Volume (CROSS FADER)

Operates when the cross fader switch is at the CROSS side.

Controls and outputs the CH1 and CH2 signals.

When the control is set to the left side, the CH1 signal increases (To 0 dB) and the CH2 signal decreases (To $-\infty$).

When set to the right side, the CH2 signal increases (To 0 dB) and the CH1 signal decreases (To $-\infty$).

⑦A Fader Start Switch (FADER START) and indicator (Refer to Page 14.)

When pressed, the indicator lights up and the fader start switch turns ON. When pressed another time, the indicator goes off and the fader start switch goes off.

When the optional CD player (CDJ-500 or CDJ-500II) is connected to the unit using the commercially available cord with mini plug (no resistor), this ON/OFF switch is used to start automatic playing of the CD player using the channel fader or cross fader.

⑦B Cross Fader Switch (CH./CROSS)

CH.:

Select when mixing sounds using the channel fader volume. (Direct mix.)

When the fader start switch is ON, fader should be started by the channel fader.

CROSS:

Select when mixing sounds using the cross fader. (Cross fader mix.)

When the fader start switch is ON, fader should be started by the cross fader.

Master Volume Level Adjustment (MASTER LEVEL)

Used to adjust the level of the master output volume.

The signal mixing the CH1 and CH2 channel fader levels and microphone inputs will be output.

⑧ Headphone Monitor Section

Monitor Level Knob (MONITOR LEVEL)

Used for adjusting the headphone monitor volume.

Monitor Select Switch (CH-1/CH-2/MASTER) and indicators

When pressed, the indicator lights up and the fader start switch turns ON. When pressed another time, the indicator goes off and the fader start switch turns off.

Used for selecting the headphone monitor sources (CH-1, CH-2, MASTER).

When the button of the desired source is pressed, the sound of the channel selected will be output to the headphone terminal.

For CH-1 and CH-2, the sound before the channel fader is set will be output.

For MASTER, the sound after the master control is set will be output.

Two sources can be selected simultaneously. When MASTER is pressed when CH-1 and CH-2 are selected simultaneously, only MASTER will be selected. When only one of the channels and MASTER are selected simultaneously, the one channel and MASTER will be selected.

(Three sources cannot be selected simultaneously.)

(Relation between Monitor Select Switch and Headphone Output)

Monitor Select Switch			Headphone Output	
CH-1	CH-2	MASTER	L	R
ON	OFF	OFF	CH1 (L)	CH1 (R)
OFF	ON	OFF	CH2 (L)	CH2 (R)
OFF	OFF	ON	MASTER (L)	MASTER (R)
ON	ON	OFF	CH1 (L) + CH2 (L)	CH1 (L) + CH2 (R)
ON	OFF	ON	CH1 (MONO)	MASTER (MONO)
OFF	ON	ON	CH2 (MONO)	MASTER (MONO)

⑨ Headphone Terminal (PHONES)

■ SPECIFICATIONS

Audio Section

Input terminal (Input level/impedance)

CD	-14 dBV (200 mV) / 22 k Ω
LINE	-14 dBV (200 mV) / 47 k Ω
PHONO	-52.5 dBV (2.37 mV) / 47 k Ω
MIC	-60 dBV (1 mV) / 3 k Ω

Output terminal (Output level/impedance)

MASTER OUT (RCA)	0 dBV (1 V) / 1 k Ω
PHONES	-4 dBV (0.63 V) / 150 Ω

Frequency characteristics

CD/LINE	20 Hz to 20 kHz
PHONO	20 Hz to 20 kHz
MIC	20 Hz to 20 kHz

SN ratio

CD/LINE	80 dB
PHONO	75 dB
MIC	67 dB

Total harmonic distortion rate

CD/LINE, PHONO, MIC	Below 0.05 % (In 3 Vrms output)
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Cross talk 70 dB

Channel equalizer

LOW	+12 dB, -26 dB (70 Hz)
MID	+12 dB, -26 dB (1 kHz)
HI	+12 dB, -26 dB (13 kHz)

Microphone equalizer $\pm$ 12 dB (10 kHz)

Electrical Section, Others

Power supply voltage	AC 120 V, 60 Hz (KUC)
Power supply voltage	AC 110/120/220-230/240 V, 50/60 Hz (SYL)
Power consumption	16 W (KUC)
Power consumption	17 W (SYL)
Operating temperature	+5 °C to +35 °C (41°F to 95°F)
Operating humidity	5 % to 85 %
External dimensions	308 (W) $\times$ 225.3 (D) $\times$ 107 (H) mm (12-1/8 (W) $\times$ 8-11/16 (D) $\times$ 4-1/4 (H) in.)
Weight	3.5 kg (7 lb 12 oz)

Accessories

- Operating instructions 1

NOTE:

Specifications and the design are subject to possible modifications without notice, due to improvements.